

Heath #597-1442-01

TUBE DATA

FOR

HEATH

6L6 72 mA = 100%.

EL34 100 mA = 100%.

IT-17 IT-21 IT-3117 TUBE TESTERS

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IMPORTANT NOTES

* Special short test for tubes with internal connections. A good tube will not show short when the levers shown in parenthesis () are moved simultaneously. If moved individually it will show short.

Be sure to set filament selector switch to .63 volts when checking for continuity or short tests.

Tubes followed by suffixes such as G, GT, Y, W, A, B, etc., in general can be tested by the same setup listed for the tubes without a suffix.

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
00A	2	6	30	BC	D	1AD2	4	1.4	60	N	HM	1BQ2	4	1.4	86	N	BEH
01A	2	5	45	BC	D	No short test. Good tube reads above 20						Tube damaged if BE or H is moved.					
0A2	4	Off	40	AE	BDG	Tube damaged if H or M is moved.						1BX2	4	1.4	67	N	ADFJ
Good tube reads above 10.						1AE4	1	1.4	23	BCF	AE	No short test.					
0A3	4	Off	30	E	BCG	1AF4	1	1.4	26	BCF	AE	1BY2	4	1.4	60	N	HM
Good tube reads above 10.						1AF5	1	1.4	75	DEF	A	No short test. Good tube reads above 20.					
0A4	4	Off	40	G	BE	1AH5	1	1.4	32	DEF	CG	Tube damaged if H or M is moved.					
	4	Off	44	E	BG		1	1.4	53	C	G	1C3	1	1.4	25	BCDEP	G
0B2	4	Off	85	AE	BDG	1AJ4	1	1.4	24	BCF	G	No open element test on BE & F.					
Good tube reads above 10.						No open element test on B.						1C5	2	1.4	37	CDE	G
0B3	4	Off	30	E	BCG	1AU2*	4	1.4	100	(AJ)	E	1C6	2	2	42	CD	F
Good tube reads above 10.						1AX2	4	1.4	95	N	BEH		1	2	68	BEN	F
0C2	4	Off	40	AE	BDG	Good tube reads above 25.						1C7	2	2	41	EF	G
Tube normally shows leakage.						1AY2	4	1.4	58	N	G		1	2	56	CDN	G
Good tube reads above 10.						Insert into pins 2 & 7 of 9 pin min.						1C21	4	Off	45	E	BG
0C8	4	Off	30	E	BCG	1B3	1	1.4	98	N	ACDEFGH	1D5	2	2	39	CDN	G
Good tube reads above 10.						Use G & N only for element test.						1D5GP	2	2	33	CDN	G
0D3	4	Off	30	E	BCG	Good tube reads above 26.						1D7	1	2	31	EF	G
Good tube reads above 10.						1B4	1	2	27	BCN	D		1	2	95	CDN	G
0G3	4	Off	32	ACEF	BDG	1B4P	2	2	35	BCN	D	1D8					
Good tube reads above 10.						1B5(255)	1	2	31	BE	F	2	1.4	48	FN	G	
0Y4	4	Off	22	E	CGH		1	2	40	D	F		1	1.4	37	CDE	G
0Z4	4	Off	22	E	CH		1	2	40	C	F		1	1.4	95	G	H
	4	Off	22	C	EH	1B7	1	1.4	26	EF	G	1D13*	1	1.4	75	(BF)	CG
1A3	1	1.4	75	BF	CG		1	1.4	95	CDN	G	1DG3	4	1.4	60	N	CE
1A4	1	2	28	BCN	D	1B8	2	1.4	32	CDE	G	Good tube reads above 30. No short test.					
1A5	2	1.4	50	CDE	G		2	1.4	60	FN	G	1DK1	1	1.4	70	N	B
1A6	2	2	50	CD	F		1	1.4	95	H	G	Insert 2 base leads into pins 1 & 2 of 9 pin min. skt.					
	1	2	98	SEN	F	1BC2	4	1.4	70	N	EEH	Use plate cap on single lead.					
1A7	1	1.4	31	EF	G	Tube damaged if IE or H is moved.						Good tube reads above 20.					
	1	1.4	95	CDN	G	1BG2	1	1.4	32	N	E	1DK29	1	1.4	32	N	B
1AB4	1	1.4	23	BCF	AE	Insert 2 base lead into pins 1 & 2 of 9 pin min. skt.						Insert 2 base leads into pins 1 & 2 of 9 pin min. skt.					
1AB5	1	1.4	25	BCF	GH	Use plate cap on single lead.						Use plate cap on single lead.					
1AB6	1	1.4	25	BCDEF	G	Good tube reads above 20.						Good tube reads above 20.					
No open element test on B, E & F.						1BK2	4	1.4	52	N	BEH	1DN5	1	1.4	52	D	G
						No short test. Good tube reads above 30.							1	1.4	27	BCF	G

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
1E3	3	1.4	30	AH	CE	1LA4	2	1.4	40	BCF	H	1T5	2	1.4	40	CDE	G
1E4	2	1.4	45	CE	G	1LA6	1	1.4	30	CD	H	1U4	2	1.4	30	BCF	AE
1E5	1	2	35	CDN	G		1	1.4	95	BEF	H	1U5	2	1.4	40	BCF	A
1E7	2	2	30	CDH	G	Good tube reads above 40 on test 2.							1	1.4	66	D	A
	2	2	30	EFH	G	1LB4	2	1.4	40	BCF	H	1U6	1	1.4	34	CD	BEFG
1F1	1	1.4	24	BCF	G								1	1.4	40	BEF	CDG
No open element test on B.						1LB6	1	1.4	32	BCDEFG	H	Good tube reads above 30 on test 2.					
1F2	2	1.4	37	BCF	AE	1LC5	1	1.4	32	BCDF	EH	1V	3	5.3	24	B	CD
1F3	2	1.4	35	BCF	G	1LC6	1	1.4	32	CD	H	1V2*	1	.63	78	(AHJ)	E
1F4	3	2	47	BCD	E		1	1.4	80	BEF	H	Good tube reads above 20. H may not show short.					
1F5	2	2	38	CDE	G	1LD5	1	1.4	32	BCF	H	1X2	4	1.4	67	N	ADFJ
1F6	1	2	37	BCN	F		1	1.4	95	D	H		4	1.4	67	N.	BEH
	1	2	95	D	F	Good tube reads above 20 on test 2.						1Z2	4	1.4	85	N	BEG
	1	2	95	E	F	1LE3	2	1.4	37	BF	H	2A3	3	2.5	28	BC	D
1F7 (GV)	1	2	35	CFN	G							2A4	3	2.5	25	E	G
	1	2	95	E	G	1LG5	2	1.4	35	BCF	DEH		3	2.5	25	C	EG
	1	2	95	D	G	1LH4	1	1.4	26	BF	H	No short test.					
1FD1	1	1.4	32	DEF	CG		1	1.4	44	D	H	2A5	3	2.5	36	BCD	EF
	1	1.4	53	C	G	1LN5	2	1.4	40	BCDF	EH	2A6	3	2.5	28	BN	EF
1FD9	1	1.4	25	DEF	G	1N2	4	1.4	76	N	GH		1	2.5	40	C	EF
	1	1.4	56	C	G	1N5	1	1.4	27	CDN	G		1	2.5	40	D	EF
1Q3	1	1.4	100	N	ACDEFGH	1N6	2	1.4	38	CDE	G	2A7	2	2.5	32	E	FG
Use G & N only for element test.							1	1.4	95	F	G		2	2.5	64	BCDN	FG
Good tube reads above 10.						Good tube reads above 20 on test 2.						2AF4*	2	2.35	21	(AG) (BF)	DE
1G4	1	1.4	30	CE	G	1P1	1	1.4	23	BCF	E	2AH2	4	2.5	78	N	ABEFGHL
1G5	2	2	39	CDE	G	1P5	1	1.4	31	CDN	G	Due to varying arrangements of internal connections, this tube cannot be tested.					
1G6	1	1.4	35	CD	G	1P10	2	1.4	35	BCDF	AG	2AV2*	1	1.4	100	(AJ)	E
	1	1.4	35	EF	G	1P11	1	1.4	23	BCF	E	Good tube reads above 35.					
1H2	4	1.4	84	N	ADFJ	1Q5	2	1.4	33	CDE	G	2AZ2	4	2	63	N	ADFJ
1H4	2	2	41	CE	G	1R4	1	1.4	57	D	GH	2B3	2	2	40	N	B
1H5	1	1.4	33	CM	G	Good tube reads above 10.						Good tube reads above 10.					
	1	1.4	40	E	G	1R5	1	1.4	21	D	AE	2B4	3	2.5	24	BC	DE
1H6	1	2	30	CF	G		1	1.4	95	BCF	AE	2B6	2	2.5	95	B	FG
	1	2	40	E	G	1RK23	1	1.4	90	N	ADFJ		3	2.5	50	CD	EG
	1	2	40	D	G	Tube damaged if ADF or J is moved.						2B7	3	2.5	47	BCN	FG
1K35	1	1.4	25	BCDEF	G	Good tube reads above 35.							1	2.5	40	E	FG
No open element test on SE & F.						1RK41	4	1.4	52	N	BEH		1	2.5	40	D	FG
1J3/1K3	1	1.4	100	N	ACDEFGH	No short test. Good tube reads above 30.						2BA2*	4	2	53	(AJ)	E
Good tube reads above 10.						1S2A	1	1.4	90	N	ADFJ	2BJ2	4	2.35	65	N	ADFJ
Tube damaged if ACDEFGH is moved.						Good tube reads above 35.						Tube damaged if ADFJ or BEH is moved.					
1J5	2	2	38	CDE	G	1S4	2	1.4	30	BCDF	AE	2BN4*	1	2	19	(BG)E	(AF)D
1J6	2	2	39	CD	G	1S5	1	1.4	25	DEF	G	2BU2	1	2.5	38	N	HM
	2	2	39	EF	G		1	1.4	55	C	G	Good tube reads above 10.					
1L4	2	1.4	37	BCF	AE	1SA6	2	1.4	30	CDH	G	Tube damaged if H or M is moved.					
1L6	1	1.4	34	CD	G	1S86	1	1.4	36	CDH	G	2C21	2	6.3	29	CN	BG
	1	1.4	37	BEF	G		1	1.4	90	E	G		2	6.3	29	DE	FG
Good tube reads above 40 on test 2.						1T4	2	1.4	35	BCF	G						

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
2C22	3	6.3	22	N	GH	2HM5	3	2	18	AE	BDG	3BE6	2	3.15	21	A	BD
Short top caps together.						Tube damaged if B or G is moved.						2					
2C26	3	6.3	35	N	GH	2HQ5	3	2	18	AE	BDG	3BH2	4	3.15	80	N	BD
2C51	2	6.3	23	CD	BFGHJ	Tube damaged if B or G is moved.						Tube damaged if AE or J is moved.					
	2	6.3	23	FG	BCDHJ	2S/4S(G-2)						3BL2	1	3.15	38	N	AEJ
2C52	2	12.6	26	DE	FG							Good tube reads above 35.					
	2	12.6	26	AB	CG							Tube damaged if H or M is moved.					
2CN3	4	1.4	50	N	CEG	2T4*	2	2.35	22	(AG) (BF)	DE	3BM2	4	3.15	40	N	HM
Tube damaged if CE or G is moved.						2V2	4	1.4	97	N	BDFGH	Tube damaged if H or M is moved.					
2CW4	1	2	18	BD	HM	2V3	1	2.5	96	N	G	3BN2	4	3.15	100	N	ABEFJ
2CY6*	2	2	22	AEF	(BG)C	Good tube reads above 20.						Tube damaged if ABEF or J is moved.					
2D21	3	6.3	18	AEFG	BD	2W3	2	2.5	36	D	H	3BN4*	1	3.15	18	(BG)E	(AP)D
2DL4*	3	2.5	18	(ACFGJ)H	DE	2X2 (879)4	2.5	52	N	D	D	3BN6	1	3.15	35	BEFG	AC
2DS4	1	2	18	BO	HM	2X2A	4	2.5	44	N	D	Good tube reads above 20.					
2DV4*	3	2	18	(AB) (DF)	GM	Good tube reads above 40.						3BS2	1	3.15	40	N	HM
2DZ4*	3	2.35	21	(AG) (BF)	DE	2X3	3	2.5	43	D	H	Tube damaged if H or M is moved.					
2E5	2	2.5	44	BC	EF	2Y2	1	2.5	95	N	D	Good tube reads above 25.					
Eye CL	4	2.5	0	BD	CEF	Good tube reads above 40.						3BT2	1	3.15	38	N	HM
Eye OP	4	2.5	0	D	BCEF	2Z2 (G84)3	2.5	56	B	D	ADFJ	Tube damaged if H or M is moved.					
2E22	3	6.3	25	BCDN	E	3A2	4	3.15	54	N	B	Good tube reads above 20.					
2E24	3	2.5	22	CEN	BG	3A3	4	3.15	56	N	B	3BU8	1	3.15	22	BCFG	AE
	3	2.5	22	CEN	BG	Good tube reads above 25.							1	3.15	22	BGHJ	AE
A, D & F should show short when moved to top position.						3A4	2	1.4	28	BCDF	AG	3BW2	1	3.15	38	N	HM
2E25	3	6.3	20	DEHN	B	3A5	2	1.4	30	BC	D	Tube damaged if H or M is moved.					
2E26*	3	6.3	21	CEN	(ADF)B		2	1.4	30	EF	D	Good tube reads above 20.					
2E30	3	2.5	28	ABEF	CD	3AB	1	1.1	36	CDN	BG	2BY6	2	3.15	25	AF	BD
2EA5*	2	2.35	22	AEF	(BG)C		1	1.1	36	EF	BG		1	3.15	30	EG	BD
2EG4	2	2.0	18	BD	HM		1	1.1	45	H	BG	3BZ6	2	3.15	20	AEFG	BC
2ER5*	2	2	20	BEF	(AG)D	3AF4*	2	3.15	21	(AG) (BF)	DE	No open element test of F & G.					
2EV3*	2	2.5	22	AEF	(BG)D	3AL5	1	3.5	20	B	DE	3C2	1	1.4	80	N	DEFGH
2FK5*	2	2.35	21	BE	(AG)D		1	3.5	20	G	AD	3C4	1	1.4	23	BCF	E
2FQ5	3	2.5	20	BE	AGO	3AT2	4	3.5	61	N	ABEFJ	3C5	2	1.4	34	CDE	BG
Tube damaged if A or G is moved.						3AU8	2	3.5	22	ABEF	DG	3C6	2	1.4	40	CD	AH
2FS5*	3	2.5	20	AF	(BG)DE	3AV6	1	3.15	21	AG	3D		2	1.4	40	EF	AH
2FV6	2	2.5	20	AEF	DG		1	3.15	43	E	3D	3CA3	4	3.15	75	N	G
No open element test on E.							1	3.15	43	F	3D	3CB6	2	3.15	21	AEFG	BC
2G5	2	2.5	44	BC	EF	3AW2	4	2.5	52	N	ABEFJ	3CE5*	2	3.15	21	AEF	(BG)D
Eye CL	4	2.5	0	BD	CEF	Tube damaged if ABEF or J is moved.						No open element test on E.					
Eye OP	4	2.5	0	D	BCEF	3AW3	2	3.5	68	N	CGH	3CF6	1	3.15	19	AEFG	BD
2GK5	3	2.35	20	BE	ADG	Good tube reads above 10.						No open element test on E & G.					
Tube damaged if A or G is moved.						3B2	1	3.5	50	N	ACDEG	3CN3	4	3.15	50	N	ACEG
2GU5*	1	2.5	18	A	(BG)D	Good tube reads above 10.						Tube damaged if ACE or G is moved.					
	1	2.5	29	EF	(BG)D	3B4	3	1.4	47	ACG	E	3CS8	1	3.15	21	AF	BC
2GW5*	2	2.5	20	A(BF)	DE	3B5	2	1.4	35	COE	BG		1	3.15	40	EG	BC
2HA5	3	2	18	AE	BDG	3B7	1	1.4	33	BC	AH	3CU3	1	3.15	20	N	B
Tube damaged if B or G is moved.							1	1.4	33	FG	AH	Good tube reads above 20.					
2HK5	3	2	18	AE	BDG	3BA6	2	3.15	23	ABEF	DG						
Tube damaged if B or G is moved.						3BC5*	2	3.15	20	AEF	(BG)C						
						No open element test on E.											

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
3CV3	4	3.15	56	N	B	3GK5	3	3.15	18	BE	ADG	4BC8	2	4.2	22	AB	CD
Good tube reads above 30.						Tube damaged if A or G is moved.						2	4.2	22	FG	DH	
3CX3	4	3.15	40	N	CE	3GS8	2	3.15	20	BCFG	AE	4BE6	2	4.2	20	A	BD
Good tube reads above 35.						2	3.15	20	BGHJ	AE		2	4.2	20	EFG	BD	
Tube damaged if C or E is moved.						3GU5	1	3.15	19	A	BDG	4BF5*	3	4.2	18	(AG)EF	BC
3CY3	4	3.15	54	N	B	1	3.15	29	EF	BDG		4BL6	2	4.7	22	AJ	EH
Good tube reads above 35.						Tube damaged if B or G is moved.						2	4.7	20	BC	EFG	
3CY5*	3	3.15	22	AEF	(BG)C	3GW5*	2	3.15	20	A(BF)	DE	4BN6	1	4.2	36	BEFG	AC
3CZ3	4	3.15	44	N	B	3HA5	3	2.5	18	AE	BDG	Good tube reads above 23.					
Good tube reads above 35.						Tube damaged if B or G is moved.						4BQ7	2	4.2	21	AB	CD
3D8	2	1.4	30	BCF	AH	3HK5	3	3.15	18	AE	BDG	2	4.2	21	FG	DH	
3DA3	4	3.15	40	N	CE	Tube damaged if B or G is moved.						4BS6	2	4.2	22	AB	CD
Good tube reads above 35.						3HM5	3	3.15	18	AE	BDG	2	4.2	22	FG	DH	
Tube damaged if C or E is moved.						Tube damaged if B or G is moved.						4BU6	1	4.2	22	BCFG	AE
3DB3	4	3.15	54	N	B	3HM6	1	3.15	34	GJ	ACE	1	4.2	22	BGHJ	AE	
Good tube reads above 35.						3	3.15	19	BH	ACE		4BX6	1	5	19	AB	CE
3DC3	1	3.15	44	N	B	Tube damaged if A or C is moved.						1	5	19	FG	EH	
Good tube reads above 25.						3HQ5	3	2.5	18	AE	BDG	4BZ6	1	4.2	18	AEFG	BC
3DF3	4	3.15	40	N	C	Tube damaged if B or G is moved.						No open element test of E & G.					
Good tube reads above 30. No short test.						3HS8	2	3.15	24	BHJ	AE	4BZ7	2	4.2	21	FG	DH
3DG4	4	3.15	18	E	C	2	3.15	21	CFG	AE		2	4.2	20	AB	CD	
4	3.15	18	G	C		3HT6	1	3.15	34	GJ	ACE	4BZ8	3	4.2	18	FG	EH
3DH3	4	3.15	40	N	CE	3	3.15	19	BH	ACE		3	4.2	10	AB	CE	
Good tube reads above 35.						Tube damaged if A or C is moved.						4CB6	2	4.2	22	AEFG	BC
Tube damaged if C or E is moved.						3JCB	2	3.15	19	BGHJ	ACE	No open element test on E.					
3DJ3	4	3.15	42	N	B	Tube damaged if A or C is moved.						4CE5*	2	4.2	20	AEF	(BG)D
Good tube reads above 20.						3KFB	2	3.15	20	BGHJ	AE	No open element test on E.					
3DK6	3	3.15	22	AEF	BCG	2	3.15	20	BCFG	AE		4CM4*	3	4.2	19	(AJ)(BFH)	CEG
3DR3	4	3.15	40	N	CE	3KT6	3	3.15	19	BGHJ	ACE	Tube damaged if C or G is moved.					
Good tube reads above 35. No short test.						Tube damaged if A or C is moved.						4CS6	1	4.2	20	AF	BC
3D83	4	3.15	40	N	CE	3LE4	2	1.4	34	BCF	AH	1	4.2	28	EG	BC	
Good tube reads above 35. No short test.						3LF4	2	1.4	30	BCF	AH	4CY5*	3	4.2	24	AEF	(BG)C
3DT6	1	3.15	20	AEFG	BD	3MP26	2	3.15	21	AEF	BC	4DE6	2	4.2	21	AEFG	BC
3DZ4*	3	3.15	21	(AG)(BF)	DE	3MR24	3	3.15	20	AEF	BD	No open element test on E & G.					
3E5	2	1.4	31	BCF	AG	3MV7	2	3.15	20	AEF	BD	4DK6	3	4.2	22	AEF	BCG
3E6	2	1.4	30	BCDF	AH	3Q4	2	1.4	33	BCDF	AG	4DL4*	3	4.2	18	(ACFGJ)H	BE
3EA5*	2	3.15	22	AEF	(BG)C	3Q5	3	1.4	35	CDE	BG	4DT6	1	4.2	20	AEFG	BD
3EH7*	2	3.15	21	BGHJ	(AC)E	3S4	2	1.4	35	BCDF	AG	4EH7*	2	4.2	21	BGHJ	(AC)E
3EJ7*	2	3.15	21	BGHJ	(AC)E	3V4	2	1.4	28	BCF	AG	4EJ7*	2	4.2	21	BGHJ	(AC)E
3ER5*	2	2.5	20	BEF	(AG)D	4A6	2	2	35	CD	H	4ES8	2	4.2	20	AB	CE
3EV5*	2	2.5	23	AEF	(BG)D	3	2	46	EF	H		2	4.2	20	FG	EH	
3FH5	2	3.15	21	BE	ADG	4AUB	2	4.2	22	ABEF	BG	4EW6	2	4.2	20	AEF	BCG
Tube damaged if A or G is moved.						4AV6	1	4.2	21	AG	ED	No open element test on E & G.					
3FG5	3	3.15	20	BE	AGD	1	4.2	43	E	ED		4GJ7	2	4.2	19	HJ	ACE
Tube damaged if A or G is moved.						1	4.2	43	F	ED		2	4.2	18	BFG	ACE	
3FS5*	3	3.15	19	AF	(BG)DE	4BA6	2	4.2	23	ABEF	EG	Tube damaged if A or C is moved.					
						4BC5*	1	4.2	18	AEF	(IG)C	4GK5	3	4.2	19	BE	ADG
												Tube damaged if A or G is moved.					

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
4GM6	2	4.2	20	AEF	BDG	4KN8	3	4.7	19	AB	CE	5BB	2	4.7	21	BC	AE
4GS7	3	4.2	19	FGJ	CEH		3	4.7	19	FG	HE		2	4.7	21	FHJ	ABCEG
	3	4.2	21	AB	CEH	4KT6	3	4.7	19	BGHJ	AGE						
Tube damaged if C or H is moved.						Tube damaged if A or C is moved.						No open element test on J.					
4GSB	2	4.2	20	BCFG	AE	4LJ8	2	5	18	FGJ	CEH	5BC3*	3	5	26	(EF)	BC
	2	4.2	20	BGHJ	AE		2	5	18	AB	CEH		3	5	26	(HJ)	BC
Tube damaged if C or H is moved.						Tube damaged if C or H is moved.						Tube damaged if B or C is moved.					
4GW5*	2	4.2	20	A(BF)	DE	4LU6	3	4.2	20	AEFG	BD	5BE8	2	4.7	20	AB	CE
4GX7	2	4.7	20	BFG	ACE	4MX8	2	4.2	20	BCFG	AE		2	4.7	20	FGJ	CEH
	3	4.7	21	HJ	ACE		2	4.2	20	BGHJ	AE	5BK7	2	4.7	21	FG	EH
Tube damaged if A or C is moved.						4MP12	3	4.7	22	AEF	BD		2	4.7	21	AB	CE
4GZ5*	3	4.2	19	(BE)F	ADG	4MP26	2	4.2	21	AEF	BC	5BQ7	2	4.7	22	AB	CD
4HA5	3	4.2	18	AE	BDG	4RHH2	2	4.2	21	AB	CD		2	4.7	22	FG	DH
Tube damaged if B or G is moved.							2	4.2	21	FG	EH	5BR6	2	4.7	20	AB	CE
4HA7	1	4.2	20	BL	CM	4RHH8	3	4.7	19	AB	CE		2	4.7	20	FGJ	EH
	2	4.2	23	JK	DM		3	4.7	19	FG	EH	No open element test on F.					
4HC7*	1	4.2	20	BL	CM	4RHH15	3	4.2	22	FG	EH	5BS6	2	4.7	22	AB	CD
	2	4.2	23	(GK)J	DM		3	4.2	22	AB	CE		2	4.7	22	FG	DH
4HK8	3	4.2	18	AE	BDG	5A6	3	2.5	24	ACFGH	J	5BT6	3	4.7	22	FGH	DJ
Tube damaged if B or G is moved.						5AM6	1	4.7	18	BCFJ	AD		1	4.7	28	A	CD
4HM5	3	4.2	18	AE	BDG	No open element test on F & J.							1	4.7	28	B	CD
Tube damaged if B or G is moved.							1	4.7	18	H	OG	5BW6	1	4.7	20	A	BE
4HM6	3	4.2	18	BH	ACE	5AN6	2	4.7	22	FGH	EJ		1	4.7	20	C	BE
	1	4.2	32	GJ	ACE	No open element test on F.							2	4.7	21	FHJ	EG
Tube damaged if A or C is moved.							2	4.7	23	AB	CE	No open element test on J.					
4HR8*	2	4.2	21	A(BG)FHJ	CE	5AQ4	3	5.0	25	F	H	5BZ7	2	4.7	20	AB	CD
4HO5	3	4.2	18	AE	BDG		3	5.0	25	D	H		2	4.7	20	FG	DH
Tube damaged if B or G is moved.						5AQ5*	3	4.7	27	(AG)EF	BD	5QG8	1	4.7	30	AB	CEH
4HS8	2	4.2	24	BHJ	AE	5AR4	3	5	26	D	H		1	4.7	19	FGJ	CEH
	2	4.2	21	CFG	AE		3	5	26	F	H	No element or short test on C & H.					
4HT6	3	4.2	19	BH	ACE	5AS4	1	5	23	D	H	5CL8	2	4.7	22	AB	CD
	1	4.2	34	GJ	ACE		1	5	23	F	H		2	4.7	22	FGJ	DH
Tube damaged if A or C is moved.						5ASS	3	4.7	22	ABJ	CD	5CM6*	3	4.7	21	A(CF)J	OG
4JC6	2	4.7	19	BGHJ	ACE		2	4.7	24	F	DH	5CM8	2	4.7	24	AJ	DH
Tube damaged if A or C is moved.						5AT6	2	4.7	21	AB	CE		3	4.7	22	BFG	CD
4JD6	3	4.7	19	BH	ACEG		2	4.7	20	FGHJ	CE	5CQ8	1	4.7	19	AJ	BH
Tube damaged if A or C is moved.						No open element test on F & H.							1	4.7	19	BCF	EG
4JH8	3	4.2	20	AFEG	BD	5AU4	3	5	30	F	H	5CR8	2	5	20	AJ	EH
4JK6	3	4.7	18	AF	BD		3	5	30	D	H		2	5	19	BFG	CE
	1	4.7	33	EG	BD	5AV8	2	4.7	22	FHJ	EG	5CZ5	1	4.7	21	ACFJ	EG
4JL6	3	4.7	18	AF	BD	No open element test on F.						5DH8	1	5	19	AB	CD
	1	4.7	32	EG	BD		2	4.7	23	BC	AE		2	5	20	FGJ	DH
4JW8	2	4.7	20	BCF	EG	5AW4	4	5	18	D	H	5DJ4*	3	5	30	(CD)	GH
	2	4.7	21	AJ	EH		4	5	19	F	H		3	5	30	(EF)	AB
4KE8	2	4.2	18	BCF	EG	5AX4	3	5	40	D	H	Tube damaged if GH or AB is moved.					
	2	4.2	18	AJ	EH		3	5	40	F	H	5EAB	2	4.7	21	AJ	EH
4KF8	2	4.2	20	BGHJ	AE	5AZ4	3	5	43	F	H		2	4.7	21	BCF	EG
	2	4.2	20	BCFG	AE		3	5	43	D	H	5EH8*	2	4.7	21	GHJ	(AF)E
													2	4.7	21	BC	(AF)E
												5EUB	2	4.7	21	AGJ	EH
													2	4.7	21	BC	EF

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
5EW6	2	5	19	AF	BD	5MH19	2	5	22	AF	CG	6A4/LA	3	6.3	36	BCD	E
	1	5	41	EG	BD		2	5	22	BE	CG	6A5	2	2.5	28	CE	BG
5FG7*	2	4.7	19	AB	(CH)E	5MK9	3	5	28	E	C	6A6	3	6.3	36	BC	DG
	3	4.7	19	GJ	(CH)EF	5MQ8	2	5	20	BCF	EG		3	6.3	36	EF	DG
5FV8	2	4.7	21	FGJ	EH		2	5	21	AJ	EG	6A7	2	6.3	30	DE	FG
	2	4.7	21	AB	CE	5R4	3	5	46	D	H		2	6.3	38	BCN	FG
5GH8	2	4.7	17	BCF	EG		3	5	46	F	H	6A8	2	6.3	31	EF	GH
	2	4.7	17	AJ	EH	5R-DDH1	1	5	22	A	BE		2	6.3	40	CDN	GH
5FJ7	2	5	19	HJ	ACE		1	5	24	F	CE	6AB4	2	6.3	22	AF	CG
	2	5	18	BFG	ACE		1	5	20	GH	EJ	6AB5	2	6.3	38	BC	EF
Tube damaged if A or C is moved.						5RHP1	2	4.7	22	AJ	EH	Eye CL	4	6.3	0	BD	CEF
5GM6	2	5	19	AF	BD		2	4.7	20	BC	EFG	Eye OP	4	6.3	0	D	BCEF
	1	5	37	EG	BD	5RHR1	2	5	20	AJ	EH	6AB6	3	6.3	62	DE	CGH
5GS7	3	5	19	FGJ	CEH		2	5	20	BCF	EG		3	6.3	44	CE	DGH
	3	5	21	AB	CEH	No open element test on F.						6AB7	3	6.3	28	DFH	CEG
Tube damaged if C or H is moved.						5RX16	3	5	24	A	D	6AB7	1	6.3	20	FGHJ	CE
5QX6	1	5	19	A	BD		3	5	24	H	D	No open element test on F & G.					
	1	5	21	EFG	BD	5T4	3	5	28	F	H		1	6.3	23	AB	CE
5QX7*	2	5	20	BG	(AC)EF		3	5	28	D	H	5AC5	3	6.3	34	CE	GH
	3	5	21	HJ	(AC)E	5TB	1	4.7	20	A	CEG	5AC6	2	6.3	28	CDE	GH
5KA7	1	5	20	BL	CM		1	4.7	20	B	CEG	5AC7	3	6.3	21	DFH	CEG
	2	5	23	JK	DM		1	4.7	20	F	CEG	No open element test on C & H.					
5HB7	2	5	20	HJ	ACE	5UM	3	5	35	HJ	CEG	5AC9	1	6.3	19	B	CM
	3	5	20	BFG	ACE		3	5	35	F	H		1	6.3	19	BC	DM
Tube damaged if A or C is moved.						5UB	2	4.7	22	AJ	EH		3	6.3	19	GJK	HLM
5HC7*	1	5	20	BL	CM		2	4.7	22	BCF	EG	5AC10	3	6.3	20	JK	DM
	2	5	23	(GK)J	DM	No open element test on F.							3	6.3	20	EQ	FM
5HG8*	3	5	19	BJ	(AC)EH	5V3	3	5	30	D	B		3	6.3	20	BL	CM
	3	5	23	FG	(AC)E		3	5	30	F	B	5AD6	4	6.3	95	CDE	GH
5HZ8	2	5	20	AEFG	BD	5V4	3	5	25	F	H	Good tube reads above 28.					
5J6	1	4.7	20	AF	DG		3	5	25	D	H	Eye CL	4	6.3	0	CDE	GH
	1	4.7	20	BE	DG	5V6	3	4.7	29	CDE	AGH	Eye OP	4	6.3	0	E	CDGH
5JK6	3	5	18	AF	BD	5W4	3	5	48	F	I	6AD7	3	6.3	33	CDE	GH
	1	5	33	EG	BD		3	5	48	D	H		2	6.3	51	AF	GH
5JL6	3	5	18	AF	BD	5X3	3	5	43	B	D	6AD10	3	6.3	22	HKL	JM
	1	5	32	EG	BD		3	5	43	C	D		2	6.3	18	CFG	BEM
5JW8	2	5	20	BCF	EG	5X4	3	5	33	E	H	6AE5	3	6.3	29	CE	GH
	2	5	21	AJ	EH		3	5	33	C	H	6AE6	2	6.3	33	CE	GH
5KDB	2	5	20	AJ	EH	5X6	2	4.7	22	BC	EF		2	6.3	33	DE	GH
	2	5	20	BC	EFG		2	4.7	21	GHJ	AEF	6AE7	2	6.3	26	CD	EG
5KE8	2	5	18	BCF	EG	5Y3	3	5	50	D	H		2	6.3	27	CF	GH
	2	5	18	AJ	EH		3	5	50	F	I	6AF3*	4	6.3	18	(BJ)	EN
5KZ8	3	5	19	AJ	EH	5Y4	3	5	57	E	G	6AF4*	2	6.3	21	(AG)(BF)	DE
	3	5	20	BG	CEF		3	5	57	C	G	6AF5	2	6.3	24	CE	GH
5LJB*	3	5	22	AB	(CH)E	5Z3	3	5	35	C	B	6AF6	4	6.3	95	CDE	GH
	3	5	19	GJ	(CH)EF		3	5	35	B	D	Good tube reads above 28.					
5MB8	3	5	21	AB	CE	5Z4	3	5	27	F	E	Eye CL	4	6.3	0	CDE	GH
	3	5	19	GJ	EFG		3	5	27	D	E	Eye OP	4	6.3	0	E	CDGH
5MF8*	3	5.0	19	D(FG)H	JM	6A9	3	6.3	28	BC	E						
	1	5.0	19	BK	LM												

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6AF11	2	6.3	21	CD	GM	6AMB	1	6.3	18	BCFJ	AD	6AU7	2	3.15	25	AB	CDE
	2	6.3	21	FH	EM	No open element test on F & J.							2	3.15	25	FG	DEH
	3	6.3	20	KL	BJM		1	6.3	18	H	BG	6AU8	2	6.3	21	BC	AD
6AG5*	3	6.3	20	AEF	(BG)C	6AN4*	2	6.3	20	(AG)BF	CE		2	6.3	21	GHJ	DF
No open element test on E.						6AN5*	3	6.3	17	AEF	(BG)D	No open element test on J.					
6AG7	3	6.3	17	DFH	EG	6AN6	1	6.3	23	B	FG	6AV5	2	6.3	25	AEH	BC
6AG9	2	6.3	19	BOKL	JM		1	6.3	23	C	FG	6AV6	1	6.3	21	AG	SD
	2	6.3	20	EG	FM		1	6.3	23	D	FG		1	6.3	43	E	BD
6AG11	1	6.3	20	C	BM		1	6.3	23	E	FG		1	6.3	43	F	BD
	1	6.3	20	K	LM	6AN8	2	6.3	22	FGH	EJ	6AV11	2	6.3	23	BL	CM
	2	6.3	20	EF	DM	No open element test on E.							2	6.3	23	EG	FM
	2	6.3	20	GH	JM		2	6.3	23	AB	CE		2	6.3	23	JK	DM
6AH4	2	6.3	20	AE	GH	6AO5*	3	6.3	27	(AG) EF	BD	6AW8	3	6.3	20	GHJ	DF
6AH6	2	6.3	22	AEF	BCG	6AQ6	1	6.3	20	AG	BC		3	6.3	23	BC	AD
6AH7	3	6.3	30	AC	BG		1	6.3	40	E	BC	6AX3	3	6.3	23	DK	GM
	3	6.3	30	EF	DG		1	6.3	40	F	BC	6AX4	3	6.3	22	E	CH
6AH9*	3	6.3	19	(EF)HJL	GM	6AQ7	1	6.3	22	DE	FH	6AX5	3	6.3	32	C	BH
	3	6.3	28	BC	DM		1	6.3	34	C	BH		3	6.3	32	E	BH
6AJ4*	2	6.3	19	(ACDF)JE	BH		1	6.3	34	A	BH	6AX6G	1	6.3	19	E	QH
6AJ5*	2	6.3	23	AEF	(BG)C	6AQ8	2	6.3	21	AB	CE		1	6.3	19	C	DG
6AJ8	2	6.3	22	ABFG	CE		2	6.3	21	FG	EH	6AX7	1	3.15	20	AB	CDE
	2	6.3	23	HJ	CE	6AR5	3	6.3	30	AEF	BD		1	3.15	20	FG	DEH
6AK5*	2	6.3	22	AEF	(BG)C	6AR6	3	6.3	20	CEG	AH	6AX8	2	6.3	20	AJ	EH
6AK6	3	6.3	30	ABEF	CG	6AR8	3	6.3	22	BCFJ	EG		2	6.3	20	BCF	BG
6AK7	3	6.3	17	DFH	EG	No open element test on B, C & J.						No open element test on F.					
6AK8	1	6.3	20	A	DG		3	6.3	22	ACFH	EG	6AY3	3	6.3	22	BG	EJ
	1	6.3	20	B	CD	No open element test on A, C & H.						J may show leakage.					
	1	6.3	21	HJ	DG	6AR11	3	6.3	18	CE	BCFM	6AY11	1	6.3	18	GH	JM
	1	6.3	40	F	DG		3	6.3	18	JK	GHLM		1	6.3	19	EF	DM
6AK9	3	6.3	30	BC	GM	6AS5*	1	6.3	19	(BE) FG	AC		1	6.3	19	K	LM
	3	6.3	22	KL	GM	6AS6	2	6.3	25	AEFG	BC		1	6.3	19	C	BM
	3	6.3	21	EHJ	GM	6AS7	3	6.3	16	AB	CH	6AZ6	2	6.3	21	HJ	EG
6AK10	3	6.3	20	JK	DM		3	6.3	16	DE	FH		2	6.3	21	ABF	CE
	3	6.3	20	EG	FM	6AS8	1	6.3	19	AB	CEG	6B4	3	6.3	20	CE	G
	3	6.3	20	BL	CM		1	6.3	18	F	EH	6B5	3	6.3	45	BD	CEF
6AL3	3	6.3	19	ABCFGHJ	EN	6AS11	2	6.3	21	CD	GM		3	6.3	63	CD	BEF
No element test on top levers.							2	6.3	21	FH	EM	6B6	3	6.3	32	CN	GH
6AL5	1	6.3	22	B	DE		3	6.3	18	KL	BJM		1	6.3	40	D	GH
	1	6.3	22	G	AD	6AT6	1	6.3	20	AG	BC		1	6.3	40	E	GH
6AL6	3	6.3	24	DEN	GH		1	6.3	35	E	BC	6B7	3	6.3	50	BCN	FG
6AL7	1	6.3	40	ACDEF	BH		1	6.3	35	F	BC		1	6.3	40	D	FG
Eye OP	4	6.3	0	C	BCFH	6AT7N	3	6.3	20	AB	CE		1	6.3	40	E	FG
Eye CL	4	6.3	0	C	BH		3	6.3	20	FG	EH	6B8	3	6.3	45	CFN	GH
6AL9	2	6.3	20	BOKL	JM	6AT8	2	6.3	21	AB	CE		1	6.3	40	D	GH
	3	6.3	20	EG	FM		2	6.3	20	FGJ	CE	6B10	1	6.3	20	H	JM
6ALT1	1	6.3	21	CDFG	BM	No open element test on F & H.							1	6.3	20	K	JM
	3	6.3	20	HKL	JM	6AU4	4	6.3	22	E	CH		2	6.3	21	CD	BM
6AM4*	1	6.3	18	(ACDF)JE	BH	6AU5	3	6.3	22	AEH	CG		2	6.3	22	EF	GM
6AM5	1	6.3	22	AEC	BD	6AU6	2	6.3	22	A3F	DG						

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6B32	1	6.3	22	B	DE	6BH3	3	6.3	22	BG	EJ	Eye DP	4	6.3	0	AB	D
	1	6.3	22	G	AD	6BH6	2	6.3	22	AEFG	BC	No open element test on A, B & G.					
6BA3*	3	6.3	23	(BG)	EJ	6BH8	2	6.3	22	BC	AD	6BR7	1	6.3	20	BGHJ	CE
6BA6	2	6.3	23	ABEF	DG		2	6.3	21	GHJ	DF	6BR8	2	6.3	20	AB	CE
6BA7	3	6.3	18	AB	CEGJ	No open element test on J.							2	6.3	20	FGJ	EH
	1	6.3	36	AFGJ	BCE	6BH11	3	6.3	18	HJK	LM	No open element test on F.					
6AB8	3	6.3	25	BC	AD		3	6.3	18	FG	EM	6BS3*	2	6.3	20	(BG)	EJ
	3	6.3	22	GHJ	DF		3	6.3	18	CD	BM	6BS8	2	6.3	22	AB	CD
6BA11	2	6.3	23	BCE	HM	6BJ3	3	6.3	21	DK	GM		2	6.3	22	FG	DH
	2	6.3	22	DFG	HM	6BJ6	2	6.3	22	AEFG	BD	6BT6	1	6.3	21	AG	BC
	2	6.3	22	JL	KM	6BJ7	1	6.3	20	B	AE		1	6.3	30	F	BC
6BB14*	3	6.3	18	(AB)(FG)N	CEH		1	6.3	20	F	EG	6BU8	1	6.3	22	BCFG	AE
Tube damaged if C or H is moved.							1	6.3	20	H	EJ		1	6.3	22	BGHJ	AE
6BC4*	1	6.3	20	(AJ)BCGH	EF	6BJ8	1	6.3	20	A	BE	6BV8	1	6.3	20	F	EH
6BC5*	2	6.3	22	AEF	(BG)C		1	6.3	20	F	CE		1	6.3	20	J	EG
6BC7	1	6.3	20	B	AD		3	6.3	25	GH	EJ		2	6.3	22	BC	AE
	1	6.3	20	H	DJ	6BK4	1	6.3	30	EN	ABCDHF	6BV11	2	6.3	20	GJKL	HM
	1	6.3	21	F	DG	No open element test on N.							2	6.3	20	BCDF	EM
6BC8	1	6.3	19	FG	DH	6BK5	2	6.3	21	ACGH	DF	6BW3*	4	6.3	21	(DK)	GM
	1	6.3	19	AB	CD	6BK6	1	6.3	24	AG	BC	6BW4	4	6.3	20	G	EJ
6BD4	1	6.3	29	EN	AG		1	6.3	32	E	BC		4	6.3	20	A	EJ
6BD5	3	6.3	18	AEH	CG		1	6.3	36	F	BC	6BW6*	3	6.3	26	(AD)GHJ	CE
6BD6	2	6.3	26	ABEF	DG	6BK7	2	6.3	21	FG	EH	6BW8	1	6.3	20	A	BD
6BD7	1	6.3	21	AB	CE		2	6.3	21	AB	CE		1	6.3	20	C	BD
	1	6.3	46	H	CE	6BK8	2	6.3	22	A-IJ	CE		3	6.3	22	FHJ	DG
	1	6.3	51	F	CE	6BK11	1	6.3	20	B	CM	6BW11	3	6.3	18	GKJL	KM
6BD11	3	6.3	20	KL	BJM		1	6.3	20	BB	FM		3	6.3	17	ODEF	BM
	2	6.3	20	PH	LM	6BL4	4	6.3	22	AE	CG	6BX4	3	6.3	30	F	DG
	2	6.3	21	CD	GM	6BL7	3	6.3	22	AB	CG		3	6.3	30	A	DG
6BE3	3	6.3	20	CK	GM		3	6.3	22	DE	FG	6BX6*	2	6.3	22	BGHJ	(AC)E
6BE8	2	6.3	22	A	BD	6BL9	2	6.3	22	A	EH	6BX7	3	6.3	22	DE	FG
	2	6.3	26	EFB	BD		2	6.3	20	BC	EFB		3	6.3	22	AB	CG
6BE7*	1	6.3	20	ABFGJ	(CH)E	6BN8	1	6.3	20	A	EH	6BY9	3	6.3	23	D	AG
No open element test on F.							1	6.3	20	CFG	BE		3	6.3	23	E	QH
	1	6.3	30	FJ	(CH)E	6BN4*	1	6.3	19	(B)E	(AF)D	6BY6	1	6.3	19	AF	BD
6BE8	2	6.3	20	AB	CE	6BN6	1	6.3	36	BFG	AC		1	6.3	25	EG	BD
	2	6.3	20	FGJ	CEH	Good tube reads above 23.						6BY7	1	6.3	22	BGHJ	ACE
6BF5	3	6.3	18	AEFG	BC	6BN8	1	6.3	20	A	BE	No element or short test on A & C.					
6BF6	3	6.3	26	A3	BDEF		1	6.3	20	F	CE	6BY8	2	6.3	26	ABGH	EJ
	1	6.3	34	E	ABDFG		1	6.3	20	GH	EJ		2	6.3	22	F	CE
	1	6.3	38	F	ABDEG		1	6.3	20	GKL	HM	6BY11	1	6.3	19	CEFG	BM
6BF8	1	6.3	19	A	EF	6BN11	3	6.3	18	CIEF	BM		3	6.3	19	HKL	JM
	1	6.3	19	B	EF		3	6.3	18	AEJ	CD	6BZ3*	3	6.3	20	(DK)	GM
	1	6.3	19	C	EF	6BQ5	3	6.3	22	DEH	GH	6BZ6	1	6.3	18	AEFG	BC
	1	6.3	19	G	EF	6BQ6	3	6.3	21	AB	CD	No open element test on E & G.					
	1	6.3	19	H	EF	6BQ7	2	6.3	22	FG	DH	6BZ7	2	6.3	21	FG	DH
	1	6.3	19	J	EF		2	6.3	21	(B)	EN		2	6.3	20	AB	CD
6BF11	1	6.3	20	CEFG	BM	6BR3*	4	6.3	18								
	3	6.3	20	HKL	JM	6BR5											
6BG6	3	6.3	24	EHK	CG	Eye CL	4	6.3	0	ABH	D						

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6BZ8	3	6.3	16	FG	EH	6CH3*	3	6.3	19	(BG)	EJ	6CX8	1	6.3	20	BC	AD
	3	6.3	16	AB	CE	6CH6	4	6.3	19	BGHJ	CE		2	6.3	23	GHJ	DF
6C4	2	6.3	25	AEF	DG	6CH7*	1	6.3	19	AB	CE	6CY5*	3	6.3	22	AEF	(BG)C
6C5	2	6.3	30	CE	GH		1	6.3	19	FG	E(HJ)	6CY7	1	6.3	20	FG	DH
6C6	1	6.3	21	BCN	DEF	6CH8	2	6.3	22	HJ	AE		3	6.3	20	ABC	DJ
6C7	1	6.3	21	B	FG		2	6.3	21	BCG	EF						
	1	6.3	40	D	FG	No open element test on B.											
	1	6.3	40	E	FG	6CH40	2	6.3	22	ABFG	CE	6CZ5	1	6.3	20	ACFJ	EG
6C8	2	6.3	27	ON	DG		2	6.3	23	HJ	CE	6D1*	1	6.3	20	(AE)F	DG
	2	6.3	27	EF	GH	6CJ3*	3	6.3	20	(BG)	EJ	6D4	3	6.3	20	AG	DE
6C9	2	6.3	20	ABC	EK	6CJ6	3	6.3	16	ABFGHJN	CE	6D5	3	6.3	32	CE	GH
	2	6.3	20	GHJ	EF	6CK3*	3	6.3	18	(BG)	EJ	6D6	3	6.3	27	BCDN	EF
6C10	1	6.3	20	BL	CM	6CK4	1	6.3	21	ACE	GH	6D7	2	6.3	28	BCN	DFG
	1	6.3	20	EG	FM	6CL3*	3	6.3	19	(BG)	EJ	6D8	2	6.3	34	EF	GHI
	1	6.3	20	JK	DM	6CL5*	3	6.3	20	(AHXDEIN B(CF)			2	6.3	42	CDN	QH
6C16	2	6.3	22	AJ	EH	6CL6*	3	6.3	27	(BJ)(CH)FGAD		6D10	1	6.3	18	BL	CM
	2	6.3	20	BC	EFG	6CL8	2	6.3	22	AB	CD		1	6.3	18	EG	FM
6C18	3	6.3	17	BCG	EFG		2	6.3	22	FGJ	DH		1	6.3	18	JK	DM
	3	6.3	22	J	EFH	6CM3*	3	6.3	17	(BG)	EJ	6DA4	3	6.3	21	E	OG
Tube damaged if F or H is moved.						6CM4*	3	6.3	18	(AJ)(BFH)	CEG	6DA5	1	6.3	22	AG	BE
6CA4	2	6.3	22	A	OD	Tube damaged if C or G is moved.						Eye CL	4	6.3	0	CGHJ	ABE
	2	6.3	22	G	OD	6CM5*	3	6.3	19	(AD)EN	CGH	Eye OP	4	6.3	0	CHJ	ABEG
6CA5	3	6.3	22	B.EFG	AC	Tube damaged if C or H is moved.						6DA6	3	6.3	18	BGHJ	CE
6CA7	3	6.3	22	ACDE	GH	6CM6*	3	6.3	20	(ACFJ)	OG	6DB5*	3	6.3	20	A(CF)J	(BG)D
6CA11	3	6.3	22	BC	AG	6CM7	2	6.3	24	AH	EJ	6DB6	1	6.3	18	AEFG	BD
	3	6.3	20	DF	AE		2	6.3	26	FG	CE	6DC8	1	6.3	18	AEFG	BD
	3	6.3	20	HKL	AJ	6CM8	2	6.3	24	AJ	DH	No open element test on E & G.					
6CB5*	2	6.3	20	(AH)(DE)	B(CF)		2	6.3	24	BFG	CD	6DC8	2	6.3	22	ABFJ	CE
6CB6	2	6.3	22	AEFG	BC	6CM7	1	3.15	21	GH	DEF		1	6.3	38	G	CE
No open element test on E & B.							3	3.15	20	A	CDE		1	6.3	26	H	CE
6CCJ1	1	6.3	18	AF	DG		3	3.15	20	B	CDE	6DE4	4	6.3	22	E	GH
	1	6.3	18	BE	DG	6CQ4	3	3.3	21	E	CH	6DE6	2	6.3	20	AEFG	BD
6CC42	2	6.3	23	CD	BFGHJ	6CQ8	1	3.3	19	AJ	GH	No open element test on E & G.					
	2	6.3	23	FG	BCDHJ		1	3.3	19	BCF	EG	6DE7	2	6.3	26	FG	DH
6CC43	2	6.3	21	A3	CE	6CR6	2	3.3	23	EFG	AD		3	6.3	22	ABC	DJ
	2	6.3	21	FG	EH		1	3.3	36	B	AD	6DG6	3	6.3	20	CDE	QH
6CD3*	3	6.3	18	(DK)	GM	6CS6	1	6.3	26	AF	BC	6DJ8	2	6.3	21	FG	EH
6CD6	3	6.3	17	ENN	BC		1	6.3	25	EG	BC		2	6.3	21	AB	CE
6CE3*	1	6.3	18	(DK)	GM	6CS7	3	6.3	24	AC	DH	6DK3*	3	6.3	16	(BG)	DN
6CE5*	2	6.3	20	AEF	(BG)D		2	6.3	28	FG	DH	6DK6	2	6.3	22	AEF	BOG
No open element test on E.						6CT3*	3	6.3	18	(BF)	E	6DL3*	3	6.3	18	(BG)	DN
6CF6	2	6.3	22	AEFG	BC	6CU5	3	6.3	18	BFG	AE	6DL4*	3	6.3	18	(ACFGJ)H	BE
No open element test on E & G.						6CU6	3	6.3	18	DEN	GH	6DL5*	3	6.3	23	(AG)EF	BD
6CF8	1	6.3	20	AFHJ	CD	6CU8	1	6.3	20	HJ	AE	6DL7					
6CG3*	3	6.3	18	(DK)	GM		1	6.3	19	BCG	EF	Eye OP	4	6.3	0	E	DGH
6GG7	2	6.3	23	AE	CD	6CW4	1	6.3	18	BO	HJ	Eye CL	4	6.3	0	CEF	DGH
	2	6.3	23	FG	DH	6CWS*	3	6.3	16		CE	No open element test.					
6CG8	1	6.3	20	AB	CEH	•(AB)•(GH)						6DL8	1	6.3	40	A	EH
	1	6.3	19	FGJ	CEH	A, F or H is not used in some tubes.							1	6.3	20	CFG	BE
No element test or short test on C & H.													1	6.3	40	J	EH
												6DM4	3	6.3	22	E	CH

Tube	Type	Fi	Plate	Top (T)	Bottom (B)
6DN3*	3	6.3	18	(BG)	EJ
6DN6	3	6.3	17	EHN	CG
6DN7	3	6.3	24	AB	CG
	3	6.3	32	DE	FG
6DQ3	3	6.3	18	(DK)	GM
6DQ4	3	6.3	22	E	CH
6DQ5*	1	6.3	19	(AE) (DH) N	(CF) G
6DQ6	3	6.3	22	DEN	GH
6DR4*	1	6.3	20	(AE) F	DG
6DR7	1	6.3	19	FG	EH
	3	6.3	6	ABC	EJ
6DS4	1	6.3	18	BD	HM
6DS5	1	6.3	19	AEFG	BD
6DS6	3	6.3	22	ABFG	CD
	2	6.3	23	HJ	CD
6DT3*	3	6.3	20	(DK)	GM
6DT4*	3	6.3	24	(AE)	CH
6DT6	3	6.3	22	ACFJ	EG
6DT6	1	6.3	20	AEFG	BD
6DT8	3	6.3	20	AB	CE
	3	6.3	20	FG	EH
6DU3*	3	6.3	18	(DK)	GM
6DV4	2	6.3	19	ABDF	GM
6DW4	3	6.3	20	BG	EJ
6DW6	1	6.3	22	ACFJ	EG
6DX6	2	6.3	20	AB	CE
	3	6.3	20	HJ	EF
6DY5	3	6.3	20	BGJ	CE
6DY7	3	6.3	22	ACD	GH
	3	6.3	22	DEF	GH
H normally shows leakage.					
6ZD4*	3	6.3	21	(AG) (BF)	DE
6D27	3	6.3	22	ACD	GH
	3	6.3	22	DEF	GH
No open element test on C & F					
6D28	1	6.3	20	AJ	EH
	3	6.3	20	CFG	BE
6E5	2	6.3	36	BC	EF
Eye OP	4	6.3	0	D	BCE
Eye CL	4	6.3	0	BD	CEF
6E6	3	6.3	31	BC	DG
	3	6.3	3	EF	DG
6E7	2	6.3	28	BCN	DFG
6E8	2	6.3	3	EF	GH
	2	6.3	40	CDN	GH
6EA4	1	6.3	28	FN	BEJLM
Tube damaged if BEJ or L is moved					
6EA5*	2	6.3	22	AEF	(BG) C
6EA7	1	6.3	22	DE	FN
	3	6.3	20	AB	CH

Tube	Type	Fi	Plate	Top (T)	Bottom (B)
6EAB	2	6.3	20	AJ	EH
	2	6.3	20	BCF	EG
6EB5	3	6.3	38	G	AD
	3	6.3	38	B	DE
6EB6	1	6.3	20	BC	AF
	2	6.3	22	GHJ	EF
6EC4*	3	6.3	19	(BGH)	EN
6ED4	1	6.3	26	HN	ABCEFGJ
Tube damaged if ABCEFG or J is moved.					
6EF6	4	6.3	18	CDE	GH
6EH4	1	6.3	28	FN	BEJLM
Tube damaged if BEJ or L is moved					
6EH5	3	6.3	20	BEFG	AD
6EH7*	2	6.3	21	BGHJ	(AC) E
6EH8*	3	6.3	20	BC	(AF) E
	3	6.3	20	GHJ	(AF) E
No open element test on J					
6EJ4	1	6.3	26	FN	EM
6EJ7*	3	6.3	18	BGHJ	(AC) E
6EL4	1	6.3	30	EN	ABCOFH
No element tests					
6EM5	3	6.3	18	ACFJ	EG
6EM7	3	6.3	19	AB	CH
	1	6.3	20	DE	FN
6EN4*	1	6.3	27	(EF) N	ABCDH
No short test.					
6EQ7	1	6.3	34	H	CE
Good tube reads above 25.					
	2	6.3	22	ABFG	CE
6ER5*	2	6.3	20	BEF	(AG) D
6ES5*	3	6.3	21	BE	(AG) D
6ES6	3	6.3	21	AEF	BCG
6ES8	2	6.3	20	AB	CE
	2	6.3	20	FG	EH
6ET6	3	6.3	20	AEF	BCG
6ET7	3	6.3	20	GHJ	EF
No open element test on J.					
	1	6.3	56	B	AE
	1	6.3	56	C	AE
6EU7	2	6.3	24	EF	BD
	2	6.3	24	GH	BJ
6EUB	2	6.3	19	AGJ	EH
	2	6.3	19	BC	EF
6EV5	2	6.3	22	AEF	(BG) D
6EV7	2	6.3	23	AB	CE
	2	6.3	23	FG	EH
6EW6	2	6.3	20	AEFG	ID
6EW7	3	6.3	19	ABC	EJ
	3	6.3	30	FG	BH

Tube	Type	Fi	Plate	Top (T)	Bottom (B)
6EX6	3	6.3	15	EHN	CG
6FY6	3	6.3	22	CDE	BH
6EZ5	3	6.3	21	CDE	GH
6EZ8	1	6.3	20	BC	AD
	1	6.3	20	FG	D
	1	6.3	20	HJ	D
6F5	1	6.3	20	DN	GH
6F6	3	6.3	32	CDE	GH
6F7	3	6.3	43	BCN	FG
	3	6.3	82	DE	FG
6F8	2	6.3	24	ON	DG
	2	6.3	24	EF	GH
6F10	3	6.3	21	DFH	CEG
No open element test on C & H					
6F19	1	6.3	22	BGHJ	ACE
Tube damaged if A or C is moved.					
6F22	1	6.3	20	AFHJ	CE
6F26	1	6.3	22	BGHJ	ACE
Tube damaged if A or C is moved.					
6F29*	2	6.3	21	BGHJ	(AC) E
6F30	2	6.3	21	BGHJ	ACE
Tube damaged if A or C is moved					
6F33	2	6.3	25	AEFG	BC
6F35	2	6.3	23	AEF	BGC
Tube damaged if B or G is moved					
6FA7	2	6.3	24	AGH	DF
	2	6.3	24	GHJ	DF
	1	6.3	48	C	DF
6FD6	1	6.3	19	ABEF	DG
6FD7*	1	6.3	21	FG	EH
	3	6.3	18	A(BC)	EJ
6FE5	3	6.3	22	CDE	BH
6FG5*	3	6.3	20	AEF	(BG) C
No open element test on E					
6FG6	1	6.3	28	AJ	CE
	4	6.3	100	BFGH	CE
Good tube reads above 8					
6FG7*	2	6.3	19	AB	(CH) E
	3	6.3	19	GJ	(CH) EF
6FH5*	2	6.3	21	BE	(AG) D
6FH6	3	6.3	15	DEN	GH
6FHB	2	6.3	33	AGHJ	D
	2	6.3	20	BC	D
	1	6.3	18	F	D
6FJ7	2	6.3	25	KL	JM
	3	6.3	21	CE	GM
6FM7*	3	6.3	19	(CH) E	GM
	1	6.3	20	KL	JM

Tube	Type	Fl	Plate	Top (T)	Bottom (B)	Tube	Type	Fl	Plate	Top (T)	Bottom (B)	Tube	Type	Fl	Plate	Top (T)	Bottom (B)
6FM8	1	6.3	20	B	CE	6GJ7*	3	6.3	19	BG	(AC)EF	6H5	2	6.3	36	BC	EF
	1	6.3	20	F	AE		3	6.3	20	HJ	(AC)E	Eye CL	4	6.3	0	BD	CE, F
	1	6.3	22	HJ	EG	6GK5	3	6.3	20	BF	ADG	Eye OP	4	6.3	0	D	BOEF
6FQ5*	3	6.3	20	BE	(AG)D	Tube damaged if A or G is moved.						6H6	1	6.3	25	C	DG
6FQ7	2	6.3	23	AB	CE	6CK6*	2	6.3	20	BGH	A(C, H)E		1	6.3	25	E	GH
	2	6.3	23	FG	EH	6GK17	3	6.3	22	F	CG	6H7S	3	6.3	33	BCD	FG
6FR7*	3	6.3	19	A BC)	EJ	6GL7	3	6.3	19	AB	CH		2	6.3	52	EN	FG
	3	6.3	30	FG	EH		1	6.3	20	DE	FH	6HA5	3	6.3	19	AE	BDG
6FS5*	2	6.3	20	AF	(BG)DE	6GM5	3	6.3	21	AFJ	EG	Tube damaged if B or G is moved.					
6FV8	2	6.3	20	AEF	DG	6GM6	2	6.3	20	AEF	BDG	6HA6*	3	6.3	19	BG(FH)	ACEJ
No open element test on F						6GM8	2	6.3	22	AB	CE	Tube damaged if C or J is moved.					
6FV8	2	6.3	21	FGJ	EH		2	6.3	22	FG	EH	6HB5*	3	6.3	18	B, CL, G	(DK)M
	2	6.3	21	AB	CE	6GN8	1	6.3	19	BC	AE	6HB6*	3	6.3	18	B(FH)	AE
6FW8	3	6.3	20	AEH	CG		3	6.3	19	GH	EFJ		1	6.3	24	(CJ)G	AE
6FY5	2	6.3	20	BE	ADG	6GO7	1	6.3	20	F	EG	6HB7	2	6.3	20	HJ	ACE
No element or short test on A & G							1	6.3	20	H	EJ		3	6.3	20	BFG	ACE
6FY7	3	6.3	19	CE	GM		1	6.3	20	B	AE	Tube damaged if A or C is moved.					
	1	6.3	21	KL	JM	6GS7	3	6.3	19	FGJ	CEH	6HC8	3	6.3	23	CFG	BE
6Q5	2	6.3	36	BC	EF		3	6.3	21	AB	CEH		3	6.3	25	AJ	EH
Eye CL	4	6.3	0	BD	CE, F	Tube damaged if C or H is moved.						6HD5*	3	6.3	19	(CL, EJ)G	(DK)M
Eye OP	4	6.3	0	D	BOEF	6GS8	2	6.3	20	BCFG	AE	6HD7	3	6.3	20	BFG	ACE
6QG	3	6.3	36	CDE	GH		2	6.3	20	BGHJ	AE		3	6.3	19	HJ	ACE
6QG6	2	6.3	28	CDE	BH	6GT5*	3	6.3	19	(AG)(BF)J	CE	Tube damaged if A or C is moved.					
6Q7	3	6.3	38	BN	CEG	6GU5*	1	6.3	19	A	(BG)D	6HE5*	3	6.3	21	(BJ)(DK)F	(DL)M
	1	6.3	24	D	CG		1	6.3	29	EF	(BG)D	6HE7	1	6.3	19	B	DM
	1	6.3	24	F	CG	6GU7	3	6.3	22	AB	CE		3	6.3	18	EJL	HM
6Q11	1	6.3	20	ODFG	BM		3	6.3	22	FG	EH	6HF5*	3	6.3	19	C(EJ)F, H, L, N	(DK)M
	3	6.3	20	HKL	JM	6GV5*	3	6.3	19	CGJ(EJ)N	(OK)M	6HF8	1	6.3	19	BC	AE
6QA7*	3	6.3	20	(BC)DG	EM	6GV7	3	6.3	17	BCG	EFH		3	6.3	19	GH	EFJ
	3	6.3	24	L	HM		3	6.3	22	AJ	EFH	6HG5*	3	6.3	25	(AG)EF	BD
6QA8	2	6.3	22	FG	EH	Tube damaged if F or H is moved.						6HG8*	3	6.3	18	BJ	(AC)EH
	2	6.3	22	AB	CE	6GV8	1	6.3	19	AB	CE		3	6.3	20	FG	(AC)E
6QB3	3	6.3	19	DE	GH		3	6.3	20	FGJ	EH	6HJ5*	3	6.3	18	CL, (EJ)G	BD, M
6QB5*	3	6.3	19	(AB) FGJN	CEH	6GW5*	2	6.3	20	A(B*)	DE	Tube damaged if D or K is moved.					
Tube damaged if C or H is moved.						6GW6	3	6.3	20	DEH	GH	6HJ7	3	6.3	19	BFG	ACE
6GB6	3	6.3	21	DEH	GH	6GW8	1	6.3	20	AJ	BE		3	6.3	18	HJ	ACE
6GB7	3	6.3	18	DEH	BH	6GX8	1	6.3	19	A	BD	Tube damaged if A or C is moved.					
6GB9	3	6.3	22	DEH	GM		1	6.3	21	EPG	BD	6HJ8	1	6.3	19	H	EG
6GC5*	3	6.3	21	(AH)(CF)J	EG	6GX7*	2	6.3	20	BG	(AC)EF		3	6.3	19	BC	AE
6GC6	2	6.3	21	DEHN	CG		3	6.3	21	HJ	(AC)E		3	6.3	28	CFJ	AE
6GD7*	3	6.3	19	AB	(CH)E	6GY5*	3	6.3	18	(CGJ)(EJ)N	(DK)M	6HK5	3	6.3	18	AE	BDG
	3	6.3	19	GJ	(CH)EF	6GY6	3	6.3	19	AEFG	BD	Tube damaged if B or G is moved.					
6GE5*	3	6.3	19	B, CL, G	(DK)M	6GY8	1	6.3	25	AB	E	6HL5*	3	6.3	18	(AB)GJ	CE
6GF5*	3	6.3	19	E(CL)G	(DK)M		1	6.3	19	CJ	EH	6HL8	2	6.3	20	AJ	EH
6GF7	3	6.3	18	EF	CE		1	6.3	22	F	EG		3	6.3	19	BC	EH, G
	1	6.3	20	HJ	AE	No open element test on B & C.						6HMS	3	6.3	18	AE	BDG
6GH8	2	6.3	7	ECF	EG	6GZ5*	3	6.3	19	(BE)F	ADG	Tube damaged if B or G is moved.					
	2	6.3	17	AJ	EH	6H4	1	6.3	25	D	GH	6HMS	3	6.3	19	BH	ACE
6GJ5*	3	6.3	20	(AG)(BF)N	CE								1	6.3	34	GJ	ACE

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6HQ5	3	6.3	18	AE	BDG							6JX8	2	6.3	20	HJ	CE
Tube damaged if B or G is moved													2	6.3	20	ABFG	CE
6HR5*	3	6.3	26	AG)EF	BD	6JD5*	3	6.3	18	(BL)(CK)G	DM	6JY8	2	6.3	20	BC	AE
6HR6	3	6.3	18	ABEF	DG	6JD6	3	6.3	19	BH	ACEG		2	6.3	20	GH	EF
6HS5*	3	6.3	18	(BL)(CK)G	DM	No element or short test on A & C.						6JZ6*	3	6.3	18	(DK)CEN	BM
6HS6		6.3	9	A	DG	6JEB*	3	6.3	17	•	CE	6JZ8*	3	6.3	20	D(FG)H	JM
	1	6.3	21	BEF	DG	•(AG)(BF)HN							1	6.3	21	BK	LM
6HS8	2	6.3	24	BHJ	AE	6JEB	2	6.3	20	BC	AE	6K5	1	6.3	20	CN	GH
	2	6.3	21	CFG	AE		3	6.3	19	GHJ	EF	6K6	3	6.3	34	CDE	GH
6HT5		6.3	40	FN	M	6JF6*	3	6.3	18	•	CE	6K7	2	6.3	32	CON	EGH
6HU6*	1	6.3	22	AJ	CE	•(AG)(BF)HN						6K8	1	6.3	20	DE	GH
	4	6.3	100	(BF)HG	CE	6JG5	3	6.3	19	GHJ	DF		1	6.3	20	EF	GH
Good tube reads above 8.						6JG6*	3	6.3	18	(AG)BJ	ECF	6KI1	2	6.3	23	JK	DM
6HJ8	3	6.3	21	ABC	EG	6JH5*	3	6.3	20	•	DM		1	6.3	39	CN	GH
	3	6.3	21	FHJ	EG	•(BL)(CK)(GH)							1	6.3	20	BL	CM
6HY5*	3	6.3	20	(BL)(CK)G	DM	6JH6	3	6.3	18	AF	BD	6KA8	3	6.3	19	FGH	CE
6HW8	3	6.3	22	CF	ABEGHJ		1	6.3	48	EG	BD		2	6.3	21	AB	CE
6HZ5*	3	6.3	18	(BL)(CK)G	DM	6JH8	2	6.3	35	ABCJ	DG	6KD6*	2	6.3	17	•	BM
6HZ6	2	6.3	20	AEEG	BD		3	6.3	23	CF	DG	•(CL)(DK)(EJ)N					
6HZ8	2	6.3	21	BC	AE	6JK5*	3	6.3	20	•	DM	6KD8	2	6.3	20	BCF	EG
	3	6.3	19	GH	EFJ	•(BL)(CK)(GH)						No open element test on F					
6J4	2	6.3	20	AEEG	BD	6JK6	3	6.3	18	AF	BD		2	6.3	20	AJ	EH
6J5	2	6.3	24	CE	GH		1	6.3	33	EG	BD	6KE8	2	6.3	18	AJ	EH
6J6	1	6.3	18	AF	DG	6JK8	2	6.3	18	AB	CE		2	6.3	18	BCF	EG
	1	6.3	18	BE	DG		2	6.3	20	FG	EH	6KF8	2	6.3	20	BGHJ	AE
6J7	2	6.3	29	CDN	AEQH	6JL6	3	6.3	18	AF	BD		2	6.3	20	BCFG	AE
6J8	2	6.3	25	CDN	GH		1	6.3	32	EG	BD	6KG6*	4	6.3	21	•	EJ
	2	6.3	25	EF	GH	6JL8	3	6.3	20	CEN	BOKM	•(AH)(BG)(CF)N					
6J9	2	6.3	20	AB	CE	Tube damaged if D or K is moved						6KH8	3	6.3	24	AB	DG
	2	6.3	20	FJ	EK	6JM6	3	6.3	20	OGL	BOKM		3	6.3	20	BCJ	DG
	2	6.3	20	GH	EK	Tube damaged if D or K is moved.							3	6.3	20	FHJ	DG
6J10	4	6.3	88	DEFG	HM	6JN8	3	6.3	19	AB	CE	6KL8	1	6.3	48	H	CE
	3	6.3	20	BJL	CM		3	6.3	20	GJ	EFH		2	6.3	20	ABFG	CE
6J11	3	6.3	18	BE	CDFM	6JQ6*	3	6.3	20	A(BC)(GH)	DJ	6KM6*	3	6.3	18	•	CE
	3	6.3	18	GL	MJKM		1	6.3	23	F	DJ	•(AG)(BF)HN					
6JA5*	3	6.3	21	(BJ)(CK)F	DLM	6JH6*	3	6.3	18	(AG)BJ	CEF	6KN8*	1	6.3	48	C	EF
Tube damaged if D or L is moved						6JS6*	3	6.3	18	(CL)(EJ)N	BOKM		2	6.3	20	GH	EF
6JA8	2	6.3	20	BC	AE	Tube damaged if D or K is moved.							1	6.3	30	ABJ	EF
	3	6.3	19	GH	EFJ	6JTB*	3	6.3	20	(AG)BFJ	CE	6KN6*	3	6.3	17	•	BM
6JB5*	3	6.3	21	(BJ)(CK)F	DLM	6JTB	3	6.3	18	GH	EFJ	•(CL)(DK)(EJ)N					
Tube damaged if D or L is moved							1	6.3	19	BC	AE	6KN8	3	6.3	19	AB	CE
6JB6*	3	6.3	19	•	CE	6JU6*	3	6.3	17	•	CE		3	6.3	19	FG	EH
•(AG)(BF)HN						•(AG)(BF)HN						6KN8	3	6.3	20	BC	AE
6JC5*	3	6.3	21	(BJ)(CK)F	DLM	6JUB	3	6.3	22	GH	EJ		3	6.3	20	GHJ	EF
Tube damaged if D or L is moved.							3	6.3	22	G	EH	6KS8	1	6.3	20	BC	AE
6JC6	2	6.3	19	BGHJ	ACE		3	6.3	22	AB	CE		3	6.3	19	GH	EFJ
No element or short test on A & C						6JVB	3	6.3	18	GH	EFJ	F may show leakage.					
6JC8*	2	6.3	20	BCF	(AG)E		1	6.3	19	BC	AE	6KT8	3	6.3	19	BFGH	ACE
No open element test on F						6JWB	2	6.3	21	AJ	EH	Tube damaged if A or C is moved					
							2	6.3	20	BCF	EG						

Tube	Type	F	Plate	Top (T)	Bottom (B)	Tube	Type	Fil	Plate	Top (T)	Bottom (B)	Tube	Type	Fil	Plate	Top (T)	Bottom (B)
6KT8	3	6.3	20	GH	EFJ	6LT8	1	6.3	18	H	EG	6MJ8	3	6.3	22	BL	CM
	1	6.3	19	BC	AE		1	6.3	18	F	EG		3	6.3	22	Dk	CM
6KU8	1	6.3	38	C	AE		3	6.3	19	BCJ	AE		3	6.3	22	FH	CM
	1	6.3	38	B	AE	6LU6	3	6.3	20	AEFG	BD	6MK8	2	6.3	20	BGHJ	AE
	3	6.3	17	GHJ	EF	6LUN*	3	6.3	18	D(FG)H	JM		2	6.3	20	BCFG	AE
6KV6*	3	6.3	18	{AG BF}	CE		1	6.3	18	BK	LM	6ML4*	2	6.3	21	(AG)(BF)	DE
6KV8	3	6.3	18	GHJ	EF	6LV6*	3	6.3	18	*	BM	6MLS	2	6.3	20	CF	EG
	2	6.3	19	BC	EA		*(CL)(DK)(EJ)N						2	6.3	20	BH	EG
6KY5*	3	6.3	7	B C J I G H	AE	6LW6*	3	6.3	17	(AE)CN	BFG		2	6.3	20	AJ	EG
6KY8		6.3	19	HJ	AE	Tube damaged if B or F is moved.						6MNB	3	6.3	22	BL	CM
	3	6.3	20	BFG	CE	6LX6*	3	6.3	18	(CL)(EJ)N	BCKM		3	6.3	22	Dk	CM
6KZ8	3	6.3	20	BG	CEF	Tube damaged if D or K is moved.							3	6.3	22	FH	CM
	3	6.3	8	AJ	EH	6LX8	2	6.3	21	AJ	EH	6MP17	3	6.3	22	AEF	BD
6L5	2	6.3	26	CE	GH		2	6.3	20	BCF	EG	6MP18*	3	6.3	20	AG EF	BC
6L6	3	6.3	27	CDE	GH	6LY8	1	6.3	18	BC	AE	6MP20	3	6.3	20	AEF	BD
6L7	2	6.3	56	D	GH		3	6.3	18	GHJ	EF	6MQ8	2	6.3	21	AJ	EH
	2	6.3	20	CEN	GH	6LZ6*	3	6.3	19	(AG)(BF)N	CE		2	6.3	20	BCF	EG
6LB8*	3	6.3	18	*	BM	6M8	2	6.3	26	CDN	AG	6MU8	2	6.3	22	AJ	EH
	*(CL)(DK)(EJ)						2	6.3	26	EF	AG		2	6.3	21	BCF	EG
6LB8	3	6.3	18	GH	EFJ		1	6.3	34	H	AG	6MV8	3	6.3	19	GH	EFJ
	2	6.3	25	BC	AE	6M11	2	6.3	19	GH	JM		1	6.3	20	BC	AB
6LC8	2	6.3	20	AB	CE		2	6.3	19	EF	DM	6MX8	3	6.3	20	BFG	CE
C should show short when tube is heated. See 1							3	6.3	18	BC	KLM		1	6.3	20	HJ	AE
	2	6.3	20	FHJ	CEG	6MA6	2	6.3	38	FN	GH	6MY8*	3	6.3	19	D(FG)H	JM
6LD6*	2	6.3	21	B(CJ)(FH)G AD		6MB6*	3	6.3	18	(CL)(EJ)N	BCKM		1	6.3	19	BK	LM
6LE8	2	6.3	19	AHJ	BCE	Tube damaged if D or K is moved.						6N3	3	6.3	21	J	CD
	2	6.3	19	FHJ	CEG	6MB8	3	6.3	18	GJ	EH	6N4*	2	6.3	24	AG E	(BF)D
6LF8*	3	6.3	18	*	BM		3	6.3	21	AD	CE	6N5	1	6.3	37	BC	EF
	(CL)(DK)(EJ)N					6MC6	3	6.3	18	*	CD	Eye CL	4	6.3	0	BD	CEF
6LF8	1	6.3	20	BC	AE		*(AG)(BF)HN					Eye OP	4	6.3	0	D	BCEF
	3	6.3	20	GHJ	EF	6MD8	2	6.3	20	AJ	EG	6N6	3	6.3	61	DE	CGH
6LG6*	3	6.3	20	(CL)(EJ)N	DKM		2	6.3	20	BH	EG		3	6.3	41	CE	DGH
Tube damaged if D or K is moved.							2	6.3	20	CF	EG	6N7	3	6.3	29	EF	GH
6LH8	1	6.3	26	EN	FG	6ME8	2	6.3	29	AB	DG		3	6.3	29	CD	GH
6LJ8	1	6.3	28	EN	FG	Eye CL	4	6.3	0	BE	ADG	6N8	1	6.3	22	ABF	CD
6LJ8*	3	6.3	19	GJ	(CH)EF	Eye OP	4	6.3	0	E	ABDG		1	6.3	45	G	CD
	3	6.3	21	AB	(CH)E	6ME8*	3	6.3	20	*	CE		1	6.3	45	H	CD
6LM8	3	6.3	8	BCF	EG		*(AG)(BF)HN					6P5	2	6.3	30	CE	GH
	3	6.3	18	AJ	EH	6ME8	3	6.3	21	CFHJ	AEEG	6P7	2	6.3	32	DEH	BH
6LN8	3	6.3	21	AJ	EH	6MF8*	3	6.3	19	D(FG)H	JM		3	6.3	70	FG	BH
	3	6.3	20	BCF	EG		1	6.3	19	BK	LM	6PL12	1	6.3	20	CFG	BE
6LQ6*	3	6.3	7	*	CE	6MGB	3	6.3	20	BCF	EC		1	6.3	20	CFG	BE
	*(AG)(BF)HN						3	6.3	20	AJ	EF	6Q4	2	6.3	21	ABGHJ	CD
6LQ8	3	6.3	18	BC	AE	6MH1*	2	6.3	20	(AE)G	BE	6Q5	4	6.3	20	CE	GH
	3	6.3	18	GHJ	EF	6HMF*	3	6.3	18	*	BA	6Q6	1	6.3	29	CN	GH
6LR6*	3	6.3	17	(CL)(EJ)N	BCKM		*(CL)(DK)(EJ)						1	6.3	30	E	GH
Tube damaged if D or K is moved.						6MNH3	2	6.3	22	BE	CC	6Q7	1	6.3	21	CN	GH
6LR8	3	6.3	19	BFG	CE		2	6.3	22	AF	CC		1	6.3	47	E	GH
	1	6.3	19	HJ	AE	6MJ6*	3	6.3	19	*	CE		1	6.3	47	E	GH
							*(AG)(BF)N					6Q8	2	6.3	31	EF	GH
													2	6.3	40	CDN	GH

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6Q11	2	6.3	23	JK	DM	6SQ7	1	6.3	40	E	CG	6V6	3	6.3	29	CDE	AGH
		6.3	20	EG	FM		1	6.3	40	D	CG	6V7	3	6.3	46	N	GH
	1	6.3	20	BL	CM		1	6.3	20	BF	CG		1	6.3	50	D	GH
6R3	2	6.3	22	BJ	DN	6SR7	2	6.3	30	BF	CG		1	6.3	50	E	GH
6R6	3	6.3	41	CEN	GH		1	6.3	50	D	CG	6V8	1	6.3	20	G	EH
6R7	1	6.3	33	D	GH		1	6.3	50	E	CG		1	6.3	21	AF	CE
	1	6.3	33	E	GH	6SS7	3	6.3	30	DFH	GEG		2	6.3	22	B	CE
	3	6.3	37	CV	GH	6ST7	2	6.3	28	BF	CG		2	6.3	65	J	CE
6R8	1	6.3	20	A	EG		1	6.3	95	D	CG	6W4	3	6.3	16	E	CH
	1	6.3	20	F	EG		1	6.3	95	E	CG	6W5	3	6.3	25	C	GH
	2	6.3	25	B	CE	6SV7	2	6.3	25	AB	CDEPH		3	6.3	25	E	GH
	2	6.3	30	HJ	EG		2	6.3	25	DE	ABCFH	6W6	3	6.3	21	CDE	GH
6RA6*	3	6.3	22	BGJ	AE	6SV7	2	6.3	23	BDF	CH	6W7	1	6.3	20	CDN	EGH
6RA9*	3	6.3	20	(BGJ)	AD		2	6.3	28	E	CH	6X4	3	6.3	30	F	DG
6RB11*	3	6.3	21	A(CP)J	DH	6SZ7	1	6.3	50	E	CH		3	6.3	30	A	DG
6RHH2	2	6.3	21	FG	DH		1	6.3	50	D	CH	6X5	3	6.3	32	E	GH
	2	6.3	21	AB	CD		1	6.3	21	BF	CH		3	6.3	32	C	GH
6RHH8	3	6.3	19	FG	EH	6T1	2	6.3	21	(AG)(BF)	DE	6X6	2	6.3	41	E	GH
	3	6.3	19	AB	CE	6T4*	2	6.3	20	(AG)(BF)	CE	Eye CL	4	6.3	0	CD	EGH
6RK19*	3	6.3	20	(BJ)	EN	6T6	1	6.3	24	BC	EF	Eye OP	4	6.3	0	D	CEGH
6RP15*	3	6.3	22	(AB)GJ	CD					BD	CEF	6X8	2	6.3	21	BC	EF
6RP22*	2	6.3	20	(BJ) CH)FG	AE	Eye CL	4	6.3	0	D	BCEF	No open element test on u.					
6S4	3	6.3	24	CFJ	BE	6T6M	2	6.3	22	CDN	GH		2	6.3	20	GHJ	AEF
6S6	3	6.3	24	ADN	GH	6T7	1	6.3	20	CN	GH	6Y3Q	4	6.3	47	N	G
6S7	2	6.3	20	CDN	EGH		1	6.3	40	D	GH	6Y5	3	6.3	28	C	DF
6S8	1	6.3	28	FN	BG		1	6.3	40	E	GH		3	6.3	28	E	DF
	1	6.3	40	A	BG	6T8	3	6.3	32	HJ	CEG	6Y8	3	6.3	19	CDE	GH
	1	6.3	40	D	BG		1	6.3	20	F	CEG	6Y7	3	6.3	33	CD	GH
	1	6.3	40	C	EG		1	6.3	20	B	CEG		3	6.3	33	EF	GH
6S78	2	6.3	21	AB	CG		1	6.3	20	A	CEG	6Y10	3	6.3	20	HKL	JM
	2	6.3	21	DE	FG	6T9	3	6.3	20	HKL	JM		2	6.3	20	CEFG	BM
6SA7	2	6.3	28	CDH	AFG		1	6.3	19	BD	EM	6Z3	3	6.3	24	B	CD
	2	6.3	24	DE	FGH	6T10	3	6.3	19	HK	JLM	6Z4	3	6.3	26	B	DE
6SB7Y	2	6.3	22	DE	AFG		1	6.3	21	CEFG	BM		3	6.3	26	C	DE
	1	6.3	34	CDH	EFG	6U3	3	6.3	17	J	CD	6Z5	3	6.3	25	C	BDF
6SC7	3	6.3	33	BC	FG	6U4	3	6.3	18	E	CG	(12Z5)	3	6.3	25	E	BDF
	3	6.3	35	DE	FG	6U5	2	6.3	34	BC	EF	6Z7	3	6.3	32	CD	GH
6SD7	3	6.3	23	DFH	CEG	Eye CL	4	6.3	0	BD	CEF		3	6.3	32	EF	GH
6SE7	2	6.3	23	DFH	CEG	Eye OP	4	6.3	0	D	BCEF	6Z10	3	6.3	20	BJL	CM
6SF5	1	6.3	20	CE	BG	6U6	3	6.3	24	CDE	GH		4	6.3	56	DEFG	HM
6SF7	1	6.3	40	E	CG	6U7	2	6.3	30	CDN	EGH	6ZY5	3	6.3	36	C	GH
	3	6.3	30	BDF	CG	6U8	2	6.3	22	BCF	EG		3	6.3	36	E	GH
6SG7*	3	6.3	19	DFH	(CE)G	No open element test on F						7A4	2	6.3	24	BF	GH
6SH7*	2	6.3	20	DFH	(CE)G		2	6.3	22	AJ	EH	7A5	3	6.3	23	BCF	GH
6SJ7	2	6.3	27	DFH	CEG	6U10	1	6.3	20	EG	FM	7A6	1	6.3	28	C	BH
6SK7	3	6.3	30	DFH	CEG		2	6.3	23	JK	DM		1	6.3	28	F	GH
6SL7	3	6.3	28	DE	FG		2	6.3	23	BL	CM	7A7	3	6.3	26	BCF	DGH
	3	6.3	28	AE	CG	6V3	3	6.3	16	BGJ	EN	7A8	2	6.3	35	CD	GH
6SN7	2	6.3	26	DE	FG	6V4	3	6.3	26	A	CE		2	6.3	44	BEF	GH
	2	6.3	26	AE	CG		3	6.3	26	G	CE	7ABT*	3	6.3	26	ACE	DFHIG

Tube	Type	Fil	Plate	Top (T)	Bottom (B)	Tube	Type	Fil	Plate	Top (T)	Bottom (B)	Tube	Type	Fil	Plate	Top (T)	Bottom (B)		
7AD7	3	6.3	17	BCDF	EGH	7G7	2	6.3	22	BCDF	GH	8AL5	3	7.5	20	EG	FM		
7AF7	2	6.3	25	CD	BGH	7G8	2	6.3	24	BCD	EFCH	8AR11	3	7.5	18	BOK	JM		
	2	6.3	25	EF	BGH		2	6.3	24	CEG	BDFH		3	7.5	18	JK	GHLM		
7AG7	2	6.3	22	BCF	DEGH	7GS7	3	7.5	19	FGJ	CEH	8AUB	2	7.5	22	CE	BDFM		
7AH7	2	6.3	21	BCDF	GH		3	7.5	21	AB	CEH		2	7.5	22	GHJ	DF		
7AJ7	2	6.3	23	BCF	DGH	Tube damaged if C or H is moved.												BC	AD
7AK7	2	6.3	22	BCDF	GH	7GV7	3	7.5	17	BCG	EFH	8AV11	2	7.5	23	BL	CM		
7AN7	3	7.5	21	F	DGH		3	7.5	22	AJ	EFH		2	7.5	23	EG	FM		
	2	7.5	20	BC	AD	Tube damaged if F or H is moved.												JK	DM
Tube damaged if G or H is moved.						7H7	2	6.3	24	BCF	DGH	8AW6	3	7.5	22	GHJ	DF		
7AJ7	2	3	25	FG	DEH	7HG8*	3	7.5	18	BJ	(AC)EH		3	7.5	24	BC	AD		
	2	3	25	AB	CDE		3	7.5	20	FG	(AC)E	8B8	2	7.5	22	A	EH		
7B4	1	6.3	22	BF	GH	7J7	2	6.3	30	CDE	GH		3	7.5	20	CFG	BE		
7B5	3	6.3	29	BCF	GH		2	6.3	30	BEF	GH	8B10	2	9.45	21	EF	GM		
7B6*	2	6.3	25	BC	(DG)H	7K7	1	6.3	20	CD	BH		2	9.45	21	CD	BM		
	1	6.3	58	E	(DG)H		1	6.3	39	E	GH		1	9.45	20	K	JM		
	1	6.3	58	F	(DG)H		1	6.3	39	F	GH		1	9.45	20	N	JM		
7B7	2	6.3	28	BCF	DGH	7KY6*	3	7.5	17	B(CJ)GH	AE	8BA8	2	7.5	20	GHJ	EF		
7B8	2	6.3	28	CD	GH	7KZ6*	3	7.5	18	B(CJ)GH	AE		1	7.5	19	BC	AE		
	2	6.3	34	BEF	GH	7L7	2	6.3	26	BCF	DGH	8BA11	2	7.5	22	JL	KH		
7C4	2	6.3	33	D	GH	7MP18*	3	7.5	20	(AG)EF	BC		2	7.5	22	DFG	HM		
7C8	3	6.3	29	BCF	GH	7N7	2	6.3	26	CD	BH		2	7.5	23	BCE	HM		
7C6*	3	6.3	33	BC	(DG)H		2	6.3	26	EF	GH	8BH8	2	7.5	20	GHJ	EF		
	1	6.3	40	E	(DG)H	7O7	2	6.3	25	CD	GH		1	7.5	20	BC	AE		
	1	6.3	40	F	(DG)H		2	6.3	41	BEF	GH	8BM11	3	7.5	21	BCDF	EM		
7C7	1	6.3	22	BCF	DGH	7R7	2	6.3	22	BEF	GH		3	7.5	22	GHJL	KM		
7CL8	2	7.5	22	AB	CD		1	6.3	60	C	GH	8BJ6	2	7.5	21	A	BD		
	2	7.5	22	FGJ	DH		1	6.3	50	D	GH		1	7.5	19	GH	DJ		
7D10	4	6.3	19	BGHJ	CE	7S7	2	6.3	33	CD	GH	8BN11	3	7.5	18	CDEF	BM		
7D11	3	6.3	21	CDE	GH		2	6.3	23	BEF	GH		3	7.5	18	GJKL	HM		
7DJ8	2	7.5	21	AB	CE	7SC7	3	7.5	33	BC	FG	8BQ5	3	7.5	20	ABGJ	OD		
	2	7.5	21	FG	EH		3	7.5	28	DE	FG	8BQ11	3	7.5	18	BCDE	FM		
7D27	3	7.5	22	ACD	GH	7V7	3	6.3	18	BCF	DGH		3	7.5	19	GHJK	LM		
	3	7.5	22	DEF	GH	7W7*	2	6.3	24	BCF	(DG)EH	8BU11	3	7.5	18	CD	BM		
No open element test on C & F						7X6	3	6.3	20	C	BH		3	7.5	18	FG	EM		
7E5*	2	6.3	34	AE' CG	(DF)H		3	6.3	20	F	GH		3	7.5	18	HJK	LM		
7E6*	2	6.3	27	BC	DGH	7X7	1	6.3	21	BC	DGH	8CB11	3	7.5	19	JK	GHLM		
	1	6.3	45	E	(DG)H		1	6.3	20	E	DGH		3	7.5	19	CE	BDFM		
		6.3	45	F	(DG)H		1	6.3	21	F	DGH	8CG7	2	7.5	24	FG	DH		
7E7	3	6.3	30	BEF	GH	7Y4	3	6.3	33	C	GH		2	7.5	24	AB	CD		
	1	6.3	40	C	GH		3	6.3	33	F	GH	8CM7	2	7.5	24	FG	CE		
	1	6.3	46	D	GH	7Z4	3	6.3	34	C	GH		2	7.5	22	AH	EJ		
7ED7	2	7.5	20	BGHJ	ACE		3	6.3	34	F	GH	8CN7	3	7.5	20	B	CDE		
7ES8	2	7.5	20	AB	CD	8A8	3	7.5	22	AJ	EH		3	7.5	20	A	CDE		
	2	7.5	20	FG	DH		3	7.5	20	BCF	EG		1	7.5	20	GH	DEF		
7EY6	3	7.5	25	CDE	BH	8AC9	3	9.45	19	GJK	HLM	8CS7	3	7.5	24	AG	DJ		
7F7	1	6.3	20	CD	BH		1	9.45	19	BC	DM		2	7.5	26	FG	DH		
	1	6.3	20	EF	GH		1	9.45	19	B	CM	8CWS*	3	7.5	20	(AB)(FGH)J CE			
7F8	2	6.3	22	AC	DG	8AC10	3	7.5	20	BL	CM	A, F or H is not used in some tubes							
	2	6.3	22	EH	EG		3	7.5	20	EG	FM	8CX8	1	7.5	19	GHJ	DF		
							3	7.5	20	JK	DM		1	7.5	19	BC	AD		

Tube	Type	F	Plate	Top (T)	Bottom (B)	Tube	Type	F	Plate	Top (T)	Bottom (B)	Tube	Type	F	Plate	Top (T)	Bottom (B)
8CV7	1	7.5	20	FG	BH	8LE8	2	7.5	19	FHJ	CGE	9GV7	3	9.45	17	BCG	EFH
	3	7.5	20	ABC	DJ		2	7.5	19	FHJ	BCE		3	9.45	22	AJ	EFH
8DB	1	6.3	21	AFHJ	CE	8LSB*	3	7.5	19	B(CJ)GH	AE	9GV8	3	9.45	20	FGJ	EH
No open element test on F						8LT8	1	7.5	18	H	EG		2	9.45	21	AB	CE
8DX8	2	7.5	20	AB	CE		1	7.5	18	F	EG	9JW8	2	9.45	20	BCF	EG
	3	7.5	20	HJ	EFG		3	7.5	19	BCJ	AE		2	9.45	21	AJ	EH
8EB8	2	7.5	22	GHJ	EF	8MD8	2	7.5	20	AJ	EG	9KC6	3	9.45	23	FGJ	AE
	1	7.5	20	BC	AE		2	7.5	20	BH	EG	9KG8*	4	9.45	21	•	EJ
8EM5	3	9.45	18	ACFG	EG		2	7.5	20	CF	EG	*(AH)(BG) CFJK					
8ET7	1	7.5	56	C	AE	8MU8	2	7.5	22	AJ	EH	9KX8*	3	9.45	18	B(CJ)GH	AE
	1	7.5	56	B	AE		2	7.5	21	BCF	EG	9KZ8	3	9.45	20	BGF	CE
	3	7.5	20	GHJ	EF	8MV8	3	7.5	19	GH	EFJ		3	9.45	19	AJ	BH
No open element test on J							1	7.5	20	BC	AE	9LAB*	3	9.45	19	B(CJ)GH	AE
8FE5	3	7.5	22	CDH	BH	8RHP1	2	7.5	22	AJ	EH	9MD8	2	9.45	20	AJ	EG
8FQ7	2	7.5	23	FG	EH		3	7.5	20	CFG	BE		2	9.45	20	BH	EG
	2	7.5	23	AB	CE	8SN7	2	7.5	26	AB	CG		2	9.45	20	CF	EG
8FY7	3	7.5	18	CE	GM		2	7.5	26	DE	FG	9MH13	2	9.45	22	BE	CG
	1	7.5	21	KL	JM	9AB	3	9.45	18	AJ	EH		2	9.45	22	AF	CG
8GJ7*	3	9.45	21	HJ	(AC)E		2	9.45	20	BCF	EG	9ML8	2	9.45	20	CF	EG
	3	9.45	19	BG	(AC)EF	9AK9*	3	9.45	20	BC	DM		2	9.45	20	BH	EG
8GN8	3	7.5	18	GH	EFJ		3	9.45	19	(EF)HJL	GM	9MN8	3	9.45	22	BL	CM
	1	7.5	19	BC	AE	9AK10	3	9.45	20	BL	CM		3	9.45	22	DK	CM
8GJ7	3	7.5	22	FG	EH		3	9.45	20	EG	FM		3	9.45	22	FH	CM
	3	7.5	22	AB	CE	9AN10	3	9.45	20	JK	DM	9MP12	3	9.45	22	AEF	BD
8HA8*	3	7.5	19	BG(FH)	ACEJ		3	9.45	20	EG	FM	9RA8*	3	9.45	22	(BG)J	AE
Tube damaged if C or J is moved							3	9.45	20	BL	CM	9RAL1*	2	9.45	20	(BC)J	EJ
8JE8	2	7.5	20	BC	AE	9AO8	1	9.45	18	AB	CD		2	9.45	24	FG	EH
	3	7.5	19	GHJ	EF		1	9.45	18	FG	DH	9U8	2	9.45	22	BCF	EG
8JT8	3	7.5	18	GH	EFJ	9AU7	2	4.7	25	FG	DEH		2	9.45	22	AJ	EH
	1	7.5	19	BC	AE		2	4.7	25	AB	CDE	9X8	2	9.45	20	GHJ	AEF
8JJ8	3	7.5	22	GH	EJ	9BJ11	3	9.45	18	BCDF	EM		2	9.45	21	BC	EF
	3	7.5	22	G	EH		3	9.45	18	GHJL	KM	No open element test on J					
	3	7.5	22	AB	CE	9BR7	2	5	21	G	DEH	10	3	7.5	56	BC	D
	3	7.5	22	A	BE		2	5	21	F	DEH	10AF11	3	9.45	20	KL	B,M
8JV8	3	9.45	18	GH	EFJ		2	5	18	AB	CDE		2	9.45	21	FH	EM
	3	9.45	19	BC	AE	9CL8	2	9.45	22	AB	CD		2	9.45	21	CD	GM
8K11	2	7.5	23	JK	DM		2	9.45	22	FGJ	DH	10AL11	3	9.45	20	HKL	JM
	1	7.5	20	BL	CM	9DK3*	3	9.45	18	(BG)	DN		1	9.45	19	CDFG	BM
	1	7.5	20	EG	FM	9DZ8	1	9.45	20	AJ	EH	10BQ5	3	9.45	22	ABGJ	CD
8KA8	3	9.45	19	FGHJ	CE		3	9.45	20	CFG	BE	10C8	2	9.45	24	FGH	EJ
	2	9.45	21	AB	CE	9EAB	2	9.45	20	BCF	EG		1	9.45	22	AB	CE
8KRB	3	7.5	18	GHJ	EF		2	9.45	20	AJ	EH	10CWS*	3	9.45	20	(AB)(FGH)J	CE
	3	7.5	18	BC	AE	9ED4	1	7.5	26	HN	ABCEFGJ	A, F or H is not used in some tubes.					
8KS8	3	7.5	19	GH	EF	Tube damaged if ABCEFG or J is moved.						10DE7	3	9.45	22	ABC	DJ
	1	7.5	20	BC	AE	9EF6	1	9.45	17	CDE	BH		2	9.45	26	FG	DH
8LC8	2	7.5	20	AB	CE	9GB8	2	9.45	22	FGH	EJ	10DR7	3	9.45	16	ABC	EJ
	2	7.5	20	FHJ	CEG		2	9.45	23	AB	CE		1	9.45	19	FG	EH
	2	7.5	20	FHJ	CEG	9GH8	2	9.45	17	AJ	EH	10DX8	3	9.45	20	HJ	CFG
C should show short when tube is heated, Sec 2							2	9.45	17	BCF	EG		2	9.45	20	AB	CE

Tube	Type	Fil	Plate	Top (T)	Bottom (B)	Tube	Type	Fil	Plate	Top (T)	Bottom (B)	Tube	Type	Fil	Plate	Top (T)	Bottom (B)
10EB8	2	9.45	22	GHJ	EF	10LZ8	3	9.45	19	GH	EFJ	12A7	2	12.6	29	BCN	FG
	1	9.45	20	BC	AE		2	9.45	20	Bc	AE		1	12.6	20	E	DG
10EG7	2	9.45	21	AB	CG	10PT8*	3	50	19	(AB)(GH)J	CE	12A8	2	12.6	28	CDN	GH
	1	9.45	21	DE	FG	10T10	3	9.45	19	HK	JLM		2	12.6	38	EF	GH
10FM7	1	9.45	20	DE	FH		1	9.45	21	CEFG	BM	12AB5*	3	12.6	30	(AH)(CF)J	EG
	3	9.45	19	AB	CH	10Y	3	7.5	42	BC	D	12AC5	1	12.8	21	ABEF	OG
10EW7	3	9.45	30	FG	EH	10Z10	3	9.45	20	BJL	CM	12AC10	3	12.6	20	BL	CM
	3	9.45	19	ABC	EJ		4	9.45	58	DEFG	HM		3	12.6	20	EG	FM
10FD7*		9.45	21	FG	EH	11AR11	3	12.6	18	JK	GHLM		3	12.6	20	JK	DM
	3	9.45	18	A BC,	EJ		3	12.6	18	CE	BDFM	12AD6	1	12.6	20	AEFG	BC
10FR7*	3	7.5	19	A(BC,	EJ	11BM8	1	9.45	20	CPG	BE	12A07	1	6.3	22	AB	CDE
	3	7.5	30	FG	BH		1	9.45	20	AJ	EH		1	6.3	22	FG	DEH
10GF7	1	9.45	20	HJ	AE	11BN11	3	12.6	18	CDEF	BM	12AE6	1	12.6	40	F	BC
	3	9.45	18	BF	CE		3	12.6	18	GHKL	HM		1	12.6	40	E	BC
10GK8*	3	7.5	20	BGH	A(C)E	11BQ11	3	12.6	18	BCDE	FM		1	12.6	22	AG	BC
10GN8	3	9.45	19	GH	EFJ		3	12.6	18	GHJK	LM	12AE7	1	6.3	19	AB	CDE
	1	9.45	19	BC	AE	11BT11	2	12.6	20	CJ	DM		1	6.3	19	FG	DEH
10GY8	2	9.45	21	AB	CE		2	12.6	20	EG	FM	12AE10	1	12.6	20	HKL	JM
	3	9.45	20	FGJ	EH		3	12.6	20	BKL	FHM		3	12.6	21	CEFG	BM
10HA8*	3	9.45	18	BG(FH)	ACEJ	11CA11	3	12.6	20	HKL	AJ	12AF3	4	12.6	18	BJ	EN
Tube damaged if C or J is moved.							3	12.6	20	DF	AE	12AF6	1	12.6	20	ABEF	DG
10HFB	3	9.45	19	GH	EFJ		8	12.6	22	BC	AG	12AF11	3	12.6	20	KL	LM
	1	9.45	19	BC	AE	11CF11	3	12.6	19	CDE	FM		2	12.6	21	FH	EM
10JA6*	3	9.45	21	(BJ)(CK)F	DLM		3	12.6	19	BL	GM		2	12.6	21	CD	GM
Tube damaged if D or L is moved.							3	12.6	23	JK	HM	12AH7	3	12.6	30	AC	SG
10JA8	3	9.45	19	GH	EFJ	11CH11	3	12.6	17	BKL	FHM		3	12.6	30	EF	OG
	2	9.45	20	BC	AE		2	12.6	20	EG	FM	12AH8	2	6.3	20	ABFG	CDE
10JT8	3	9.45	18	GH	EFJ		2	12.6	20	CJ	EM		2	6.3	23	GH	CDE
	1	9.45	19	BC	AE	11CY7	3	9.45	20	ABC	DJ	12AJ6	1	12.6	38	F	BC
10JY8	3	12.6	18	GH	EFJ		1	9.45	21	FG	DH		1	12.6	38	E*	BC
	3	12.6	18	BC	AE	11DS5*	1	12.6	19	(AG)EF	BO		1	12.6	20	AG	BC
10KFB	3	9.45	20	BC	AE	11FY7	1	12.6	21	KL	JM	12AJ7	3	12.6	22	ABFG	CE
	3	9.45	20	GHJ	EF		3	12.6	19	CE	GM		2	12.6	24	HJ	CE
10KL8	1	7.5	38	C	AE	11HM7*	3	5	1*	B(C)GH	ADE	12AL5	1	12.6	22	G	AD
	1	7.5	38	B	AE	11JE8	3	12.6	19	GHJ	EF		1	12.6	22	B	DE
	3	7.5	17	GHJ	EF		2	12.6	20	BC	AE	12AL8	1	12.6	38	BF	CEG
10L14	2	25	21	FG	EH	11KY8	3	12.6	18	GHJ	EF		1	12.6	22	A	EJ
	2	25	21	AB	CE		2	12.6	21	BC	AE	12AL11	3	12.6	20	HKL	JM
10LB8	3	9.45	18	GH	EFJ	11LO8	3	9.45	18	BC	AE		1	12.6	21	CDFG	BM
	2	9.45	28	BC	AE		3	9.45	18	GHJ	EF	12AQ5*	3	12.6	32	(AG)EF	BD
10LD6*	2	9.45	21	•	AD	11LT8	1	12.6	18	H	GE	12ASS	3	12.6	19	BEFG	AD
•B(C)F(H)G							1	12.6	18	F	GE	12AT6	3	12.6	28	AG	BC
10LE6	2	7.5	19	AHJ	BCE		3	12.6	18	BCJ	AE		1	12.6	35	F	BC
	2	7.5	19	FHJ	CEG	11LY6*	3	9.45	18	B(C)IGH	AF		1	12.6	35	E	BC
10LM8	3	9.45	20	BCF	EG	11MS8	3	9.45	20	FGJ	BH	12AT7	2	6.3	24	FG	HJ
	3	9.45	21	AJ	EH		2	9.45	2*	AB	CE		2	6.3	24	AB	CJ
10LW8	1	9.45	19	BC	AE	11R3*	2	9.45	22	(BJ)	DN	12AU6	2	12.6	22	ABEF	DG
	3	9.45	20	GHJ	EF	12A	2	5	2F	BC	D	12AU7	2	6.3	25	FG	DEH
10LY8	3	9.45	18	GHJ	EF	12A4	2	6.3	20	BGJ	ADE		2	6.3	25	AB	CDE
	1	9.45	18	BC	AE	12A5	3	6.3	32	BCD	EF	12AV5	3	12.6	18	AEH	BC
						12A6	3	12.6	32	CDE	GH						

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
12AV6	1	12.6	43	F	BD	12BR7	2	6.3	23	G	DEH	12DL8	1	12.6	40	J	BE
	1	12.6	43	E	BD		2	6.3	23	F	DEH		1	12.6	20	CFG	BE
	1	12.6	21	AG	BD		2	6.3	21	AB	CDE		1	12.6	40	A	EH
12AV7	2	6.3	21	FG	DEH	12BS3*	2	12.6	20	(BG)	EJ		1	12.6	40	J	EH
	2	6.3	22	AB	CDE	12BT3	3	12.6	21	DK	GM	12DM4	3	12.6	22	E	CH
12AW6	2	2.5	22	AEFG	BD	12BT6	1	12.6	22	AG	BC	12DQ5	3	12.6	23	DEN	GH
No open element test on E							1	12.6	29	E	BC	12DQ7	3	12.6	22	BCGHJ	AE
12AX3	3	12.6	23	DK	GM		1	12.6	29	F	BC	12DS7	1	12.6	40	J	EH
12AX4	3	12.6	22	E	CG	12BV7*	3	6.3	20	BGH	A(C)DE		1	12.6	40	A	EH
12AX7	1	6.3	20	FG	DEH	12BV11	2	12.6	20	BCDF	EH		1	12.6	20	CFG	EH
	1	6.3	20	AB	CDE		2	12.6	20	GJKL	HJ	12DY6	3	12.6	24	ACFJ	EG
12AY3	3	12.6	22	BQ	EJ	12BW4	4	12.6	20	G	EJ	12DT6	1	12.6	20	AEFG	BD
J may show leakage							4	12.6	20	A	EJ		1	6.3	20	AB	CDE
12AY7	1	6.3	22	FG	DEH	12BY7*	3	6.3	22	BGH	A(C)DE		1	6.3	20	FG	DEH
	1	6.3	22	AB	CDE	No open element test on G.						12DT8	2	12.6	21	FG	EH
12AZ7	1	6.3	20	FG	DEH	12BZ6	1	12.6	18	AEFG	BC		2	12.6	21	AB	CE
	1	6.3	20	AB	CDE	No open element test on E & G.						12DY7	1	6.3	22	FG	DEH
12B4	2	6.3	21	BQJ	ADE	12BZ7	1	6.3	18	FG	DEH		1	6.3	67	B	ADE
12B8	3	12.6	31	CN	GH		1	6.3	18	AB	CDE		1	6.3	67	C	ADE
	1	12.6	58	D	GH	12C5	3	12.6	17	BEFG	AC	12DV8	1	12.6	20	CFG	BE
	1	12.6	58	E	GH	12C8	1	12.6	38	D	GH		1	12.6	35	A	EH
12B7	2	12.6	30	BCF	AH		1	12.6	38	E	GH		1	12.6	35	J	EH
12B8	2	12.6	26	CDN	AG		3	12.6	41	CFN	GH	12DW4*	3	12.6	20	(BG)	EJ
	3	12.6	28	EH	FG	12CA4	2	12.6	22	A	CD	12DW5	1	12.6	21	ACFJ	EG
12BA6	2	12.6	22	ABEF	DG		2	12.6	22	G	CD	12DW7	1	6.3	20	FG	DEH
12BA7	3	12.6	18	AB	CEFGJ	12CA5	3	12.6	22	BEFG	AC		2	6.3	24	AB	CDE
	1	12.6	36	AFGJ	BCE	12CK3*	3	12.6	18	(BG)	EJ	12DY8	2	12.6	21	HJ	EG
12BB14*	3	12.6	18	(AB)(FG)N	CEH	12CL3*	3	12.6	18	(BG)	EJ		2	12.6	20	ACF	BE
Tube damaged if C or H is moved.						12CM6*	3	12.6	26	A(CF)J	EG	12DZ6	1	12.6	20	AF	BDG
12BD6	2	12.6	27	ABEF	DG	12CN5*	2	12.6	42	FG	A(BE)C	12DZ7	3	12.6	22	ACD	GH
12BE3	3	12.6	20	DK	GM	12CR6	3	12.6	30	EF3	AC		3	12.6	22	DEF	GH
12BE6	2	12.6	24	EFG	BD		1	12.6	32	B	AC	No open element test on C & F					
	2	12.6	24	A	BD	12CS6	1	12.6	20	AF	BC	12E5	3	12.6	30	CE	GH
12BF6	2	12.6	34	AG	BD		1	12.6	25	EG	BC	12E13*	3	6.3	21	CDE	GH
	1	12.6	38	F	BD	12CT3*	3	12.6	18	(BR)	EJ	12EA6	1	12.6	20	AF	BDG
	1	12.6	38	E	BD	12CT8	2	12.6	22	AB	CD	12EC8	1	12.6	40	B	ACE
12BF11	3	12.6	20	HKL	JM		2	12.6	22	FGJ	DJ		1	12.6	57	FG	EHJ
	1	12.6	20	CEFG	BM	12CU5	3	12.6	18	BE'G	AD	12ED5	3	12.6	20	BEFG	AD
12BH7	2	6.3	21	FG	DEH	12CU6	3	12.6	23	DEI	GH	12EF6	4	12.6	18	CDE	GH
	2	6.3	21	AB	CDE	12CX6	2	12.6	22	AE'BCG		12EG6	1	12.6	20	AEG	BD
12BK5	2	12.6	22	ACGH	DF	12CX8	1	12.6	23	BE'	ACG		1	12.6	21	F	BD
12BK6	1	12.6	24	AG	BC	12D4	3	12.6	21	E	CG	12EH5	3	12.6	20	BEFG	AD
	1	12.6	32	E	BC	12DB5*	2	12.6	24	A(C)J	(BG)D	12EK8	1	12.6	21	EF	DG
	1	12.6	36	F	BC	12DF5	1	6.3	31	A	CJ		1	12.6	20	AB	DG
12BL6	1	12.6	20	AEF	BDG		1	6.3	31	F	HJ	12EL6	1	12.6	20	AB	DG
Good tube reads above 30						12DJ8	2	12.6	20	AB	CF		1	12.6	45	F	DG
12BN6	1	12.6	36	EEFG	AC		2	12.6	20	FG	EH		1	12.6	45	F	DG
Good tube reads above 30						12DK6	3	12.6	22	AEF	BCG	12EN6	1	12.6	19	ACF	BE
12BQ6	3	12.6	22	DEN	GH	12DK7	1	12.6	20	CG	BE		1	12.6	38	J	BE
2BR3*	4	12.6	18	(LJ)	EN		1	12.6	30	F	BE	12EN6	1	12.6	19	CDE	GH

Tube	Type	Fl.	Plate	Top (T)	Bottom (B)	Tube	Type	Fl.	Plate	Top (T)	Bottom (B)	Tube	Type	Fl.	Plate	Top (T)	Bottom (B)
13EM7	1	12.6	22	DE	FH	14GT8	1	12.6	20	HJ	EG	15HA8*	3	12.6	19	CE	GM
	3	2.6	19	AB	CH		1	12.6	20	F	AE		3	12.6	19	BG FH)	ACEJ
13FD7*	3	12.6	18	A(BC)	EJ		1	12.6	20	B	CE	Tube damaged if C or J is moved					
	1	12.6	21	FG	EH	14GW8	3	12.6	20	CFH	EG	15HB6*	3	12.6	18	B(FH)	AE
13FM7*	1	2.6	20	KL	JM		1	12.6	20	AJ	BE		1	12.6	24	CJG	AE
	3	12.6	19	(CH)E	GM	14H7	2	12.6	22	BCF	DGH	15KY8	1	12.6	28	HJ	AE
13FR7	3	12.6	19	ABC	EJ	14J7	2	12.6	32	CDE	FGH		3	12.6	20	BFG	CE
	3	2.6	30	FG	EH		3	12.6	33	BEF	GH	15LE8	2	12.6	19	AHJ	BCE
13GB5*	3	2.6	19	(AB) FG N	CEH	14JG8	2	12.6	23	HJ	EG		2	12.6	19	FHJ	CEG
Tube damaged if C or H is moved.							1	12.6	19	F	AE	15MF8*	3	12.6	19	D(FG)H	JM
13GC8	2	12.6	21	AB	CE		1	12.6	19	B	CE		1	12.6	19	BK	LM
	2	12.6	21	FHJ	EG	14N7	2	12.6	26	CD	BH	15MX8	1	12.6	28	HJ	AE
13GF7	3	12.6	18	BF	CE		2	12.6	25	EF	GH		3	12.6	20	BFG	CE
	1	12.6	20	HJ	AE	14Q7	2	12.6	25	CD	GH	16A	1	5.3	22	AEG	BD
13J10	3	12.6	20	BJL	CM		2	12.6	30	BEF	GH	16A6	3	12.6	18	BGJ	CD
	4	12.6	88	DEFG	HM	14R7	1	12.6	18	BEF	GH	16A8	2	12.6	20	CFG	BE
13JZ8*	3	12.6	20	D(FG)H	JM		1	12.6	50	C	GH		3	12.6	26	AJ	EH
	1	12.6	21	BK	LM		1	12.6	50	D	GH	16AK9	3	7.5	21	EHJ	FG
13Y10	2	12.6	24	CFG	BEM	14S7	2	12.6	28	CD	GH		3	7.5	22	KL	FG
	3	12.6	23	HKL	JM		2	12.6	24	BEF	GH		3	7.5	30	BC	FG
13Z10	3	12.6	20	BJL	CM	14V7	3	12.6	18	BCF	DGH	16AQ3	3	19.6	20	ABCDFGHJ	EN
	4	12.6	88	DEFG	HM	14W7*	2	12.6	22	BCF	(DG)EH	No element lost on top levers.					
14	2	12.6	30	BCN	DE	14X7	1	12.6	20	BC	DGH	16BQ11	3	12.6	18	BCDE	FM
14A4	2	12.6	28	BF	GH		1	12.6	20	E	DGH		3	12.6	19	GHJK	LM
14A6	3	12.6	33	BCF	GH		2	12.6	24	F	DGH	16BX11	2	12.6	21	GH	JM
14A7	2	12.6	30	BCDF	GH	Good tube reads above 30.							2	12.6	20	FF	DM
14AF7	3	12.6	25	EF	BCDGH	14Y4	3	12.6	28	C	GH		2	12.6	20	BC	KLM
	3	12.6	25	CD	BEFGH		3	12.6	28	D	GH	16CB28*	3	12.6	18	B	AB
14B6*	1	12.6	20	BC	(DG)H	14Z3	3	12.6	25	B	CD	*(CL)XDK, (EJ)N					
	1	12.6	40	E	(DG)H	19	2	2	38	BCN	DE	16GK8*	2	19.6	20	BGH	A(CJ)E
	1	12.6	40	F	(DG)H	15A6	1	12.6	20	ABFG	CE	16GY5*	3	12.6	18	C(EJ)GLN	(DK)M
14B8	2	12.6	34	CD	GH	15A8	2	12.6	24	BCN	BF	16HB5*	3	12.6	18	B(CJ)G	DKM
	2	12.6	30	BEF	GH		2	12.6	27	CH	AB	Tube damaged if D or K is moved.					
14BL11	2	12.6	20	CJ	DM	15AF11	3	12.6	20	CL	BJM	16KA6*	3	12.6	19	C(DL)EN	KM
	2	2.6	20	EG	FM		2	12.6	21	CH	EM	16KHS	3	12.6	24	AB	DG
	2	12.6	20	BKL	HM		2	12.6	21	CD	GM		3	12.6	20	BCJ	DG
14BR11	2	2.6	20	BCL	DM	15BD11	3	12.6	20	CL	BJM		3	12.6	20	FHJ	DG
	2	2.6	20	FH	EM		2	12.6	20	CH	FM	16LD6*	2	12.6	21	B(CJ)(FH)GAD	
	2	2.6	20	JK	GM		2	12.6	21	CD	GM	16LU8*	1	12.6	19	BK	LM
14C5	3	2.6	25	BCF	GH	15CW5*	3	12.6	20	AB)(F-GH)J	CF		3	12.6	19	D(FG)H	JM
14C7	2	12.6	28	BCF	DGH	A, F or H is not used in some tubes.						16MY8*	3	12.6	19	D(FG)H	JM
14E6*	3	12.6	31	BC	(DG)H	15DQ8	2	12.6	20	IB	CE		1	12.6	19	BK	LM
	1	12.6	65	E	(DG)H		3	12.6	20	HJ	EG	17	3	12.6	40	BC	DE
	1	12.6	65	F	(DG)H	15EA7	1	12.6	20	E	FH	17AB	2	12.6	20	BCF	EG
14E7	2	12.6	28	BEF	GH		3	12.6	19	B	CH		2	12.6	18	AJ	EH
	1	2.6	58	C	GH	15EW6	2	12.6	20	EFG	BD	17AB10	4	19.6	55	DEFG	HM
	1	12.6	58	D	GH	15EW7	3	12.6	19	(BC)	EJ		3	19.6	19	BJL	CM
14F7	1	12.6	20	CD	BH		3	12.6	30	G	EH	17AY5	3	12.6	24	AEH	BC
	1	12.6	20	EF	GH	15FM7*	3	12.6	19	CH)E	GM	17AX3	3	19.6	23	DK	GM
14FB	3	12.6	22	AC	DG		1	12.6	20	L	JM	17AX4	3	12.6	28	E	CH
	3	12.6	22	FH	EG	15FY7	1	12.6	21		JM						

Tube	Type	Fil	Plate	Top (T)	Bottom (B)	Tube	Type	Fil	Plate	Top (T)	Bottom (B)	Tube	Type	Fil	Plate	Top (T)	Bottom (B)	
17AY3	3	19.6	21	BG	EJ	17J28*	3	19.6	19	D(FG)H	JM	19CG3*	3	19.6	18	(DK)	GM	
J may show leakage.						1	19.6	20	BK	LM		19CL8	2	19.6	21	FGJ	DH	
17BB14*	3	2.6	18	(AB)(FG)N	CEH	17KV6*	3	12.6	18	(AG)BFJ	CE	2	19.6	21	AB	CD		
Tube damaged if C or H is moved.						17L5	3	12.6	24	CDE	GH	19DC8	1	19.6	38	H	CE	
17BE3	3	19.6	20	DK	GM	17LD8	1	12.6	28	HJ	AE	1	19.6	36	G	CE		
17BF11	3	19.6	20	HKL	JM	3	12.6	20	BFG	CE	2	19.6	22	ABFJ	CE			
1	9.6	20	CEFG	BM		17R5	3	12.6	24	BEFG	AC	19DE3*	3	19.6	18	(DK)	MM	
17BH3*	3	12.6	22	(BG)	EJ	17RHH2	2	19.6	20	AB	CD	19DE7	2	19.6	28	FG	DH	
17BQ8	3	12.6	21	DEN	GM	2	19.6	20	FG	DH	3	19.6	22	A(BC)	DJ			
17BR3*	4	19.6	18	(BJ)	EN	17RK19*	4	19.6	18	(BJ)	EN	19DK3*	3	19.6	18	(BG)	DN	
17BS3*	2	12.6	20	(BG,	EJ	17X10	4	19.6	55	DEFG	HM	19DQ3*	3	19.6	18	(DK)	GM	
17BW3*	4	12.6	21	(DK,	GM	3	19.6	19	BJL	CM	19EA8	2	19.6	20	BCF	EG		
17BZ3*	3	12.6	20	(DK,	GM	17Z3	4	12.6	18	BJ	DN	2	19.6	20	AJ	EH		
17C5*	3	12.6	24	(BE)FG	AC	18	3	12.6	31	BCD	EF	19EZ6	1	19.6	20	HJ	D	
17C9	2	19.6	20	GHJ	EF	18A5	2	12.6	24	AET	CG	1	19.6	20	FG	D		
2	19.6	20	ABC	EK		18AJ10	3	19.6	22	HKL	JM	1	19.6	20	BC	AD		
17CA5	3	12.6	22	BEFG	AD	1	19.6	20	CEFG	BM	19FL8	2	19.6	22	ABFJ	CE		
17CK3*	3	12.6	18	(BG)	EJ	18DZ8	1	19.6	20	AJ	EH	1	19.6	42	G	CE		
17CL3*	3	12.6	18	(BG)	EJ	3	19.6	20	CFG	BE	1	19.6	42	H	CE			
17CT3*	3	19.6	18	(BF)	EJ	18FW8	2	19.6	21	ABEF	DG	19FX5*	2	19.6	20	(BE,FG)	AD	
17CU5	3	12.6	19	BEFG	AD	18FX6	2	19.6	25	EFG	BD	19GQ7	1	19.6	20	B	AE	
17D4	3	12.6	21	E	CG	2	19.6	22	AFG	BD	1	19.6	20	H	EJ			
17DE4	3	19.6	22	E	CH	18FY8	1	19.6	50	F	BD	1	19.6	20	F	EG		
17DM4	3	19.6	21	E	CH	1	19.6	50	E	BD		19HR8	3	19.6	18	ABEF	DG	
17DQ8	3	12.6	24	DEN	GM	1	19.6	20	AG	BD		19HS8	1	19.6	21	BEF	DG	
17DW4*	3	12.6	20	(BG)	EJ	18QB5*	3	19.6	19	(AB)(FG)N	CEH	1	19.6	19	A	DG		
17EW8	2	19.6	20	FG	DK	Tube damaged if C or H is moved.						19HV8	2	19.6	21	GJ	BFH	
2	19.6	20	AB	CD		18GD6	2	19.6	20	ABEF	DG	1	19.6	21	AB	CE		
17GE5*	3	19.6	19	B(CL)G	(DK)M	18GV5*	3	19.6	19	(CG)(EJ)N	DKM	19J6	2	19.6	24	BE	CG	
17GJ5*	3	19.6	20	(AG)(BF)N	CE	Tube damaged if D or K is moved.						2	19.6	24	AF	CG		
17GT5*	3	19.6	18	(AG)(BF)J	CE	18GV8	3	19.6	20	FGJ	EH	19JC8	2	19.6	19	BGHJ	ACE	
17GV5*	3	19.6	19	CGL(EJ)N	(DK)M	2	19.6	21	AB	CE	Tube damaged if A or C is moved							
17QW8	3	19.6	20	DEN	GM	18H88	1	19.6	20	AC	BE	19JH8	3	19.6	19	FGJ	EH	
17H3	3	12.6	28	CH	AE	3	19.6	22	FGJ	EH	No open element test on F							
17HB28*	3	19.6	19	*	EJ	18J8	1	19.6	23	AF	BDEG	2	19.6	20	AB	CE		
* (AB)A CH(FG)N						1	19.6	23	BE	ADFG	19KF6*	3	19.6	19	(AG)BFJ	CE		
17HC8	3	19.6	23	CFG	BE	18RAL1*	2	19.6	20	(BC)	EJ	19KG8	3	19.6	19	GJ	BFH	
3	9.6	26	AJ	EH		2	19.6	24	FG	EH	3	19.6	19	BA	CE			
17JB6*	3	19.6	19	(AG)(BF)HNCE		19	3	2	37	BC	F	19MR9	2	19.6	20	ABEF	DG	
17JF6*	3	12.6	18	(AG)(BF)HNCE		3	2	39	DE	F		19Q9	3	19.6	19	AB	CEK	
17JG6*	3	12.6	18	(AG)BJ	CEF	19A3	3	7.5	21	E	FG	3	19.6	19	HJ	EG		
17JM8	3	12.6	20	CEN	BCKM	19AJ8	2	19.6	22	ABFJ	CE	19T8	1	19.6	21	HJ	CEG	
Tube damaged if D or K is moved.						2	19.6	23	HJ	CE	1	19.6	20	F	CEG			
17JN6	3	12.6	20	CGL	BCKM	19AQ5*	3	19.6	27	(AG)F	BD	1	19.6	20	B	CEG		
Tube damaged if D or K is moved.						19AU4	4	19.6	22	E	CH	1	19.6	20	A	CEG		
17LQ6*	1	12.6	23	F	DJ	19BG6	3	19.6	26	EHN	CG	19U9	3	19.6	21	J	CD	
3	12.6	20	A B(J)GHJ	DJ		19CB	1	19.6	19	A	FG	19V8	1	19.6	19	B	CE	
17JR6*	3	19.6	18	(AG)BJ	CEF	1	19.6	19	F	EG		1	19.6	19	G	EH		
17JT6*	3	12.6	20	(AG)BFJ	CE	1	19.6	20	HJ	EG		1	19.6	22	AF	CE		
						1	19.6	20	B	CE		1	19.6	35	J	CE		

Tube	Type	Fil	Plate	Top (T)	Bottom (B)	Tube	Type	Fil	Plate	Top (T)	Bottom (B)	Tube	Type	Fil	Plate	Top (T)	Bottom (B)					
19W3	3	19.6	21	J	CD	22BW3*	4	19.6	21	(DK)	GM	25CM3*	3	25	17	(BG)	EU					
19X3	3	9.6	18	J	CD	22DE4	3	2.5	22	E	CH	25CT3*	3	25	18	(VF)	EU					
19XB	2	19.6	22	BC	DF	22JF6*	3	19.6	18	(AG)(BF)HNCE		25CLP6	3	25	23	DEN	GH					
	2	19.6	21	AGHJ	DF	22JG6*	3	25	18	(AG)BJ	CEF	25D8	2	25	26	EF	AG					
19Y3*	3	19.6	20	(AGJ)	CE	22JR6*	3	25	18	(AG)BJ	CEF		2	25	28	CDN	AG					
20	2	5.3	48	BC	D	22JUG*	3	19.6	17	(AG)(BF)HNCE			1	25	22	H	AG					
20AQ3	3	19.6	20	ABCFGH	EN	22KMG*	3	25	18	(AG)(BF)HNCE		25DK3*	3	25	18	(BG)	DN					
No element test on top levers.						22KV6*	3	19.6	18	(AG)BFJ	CE	25DK4	4	25	26	E	CG					
20D4	2	5.3	22	ABFG	CE	22JS6*	3	25	18	(CL)(EJ)N	BDKM	25DL3*	3	25	18	(BG)	DN					
	2	5.3	23	HJ	CE	Tube damaged if D or K is moved.						25DN8	3	26	17	EHN	CG					
20EQ7	1	19.6	34	H	CE	23MB6	3	25	18	(CL)(EJ)N	BDKM	25DQ6	3	25	24	DEN	GH					
Good tube reads above 25						Tube damaged if D or K is moved.						25DT5	3	25	22	ACFL	EG					
	2	19.6	22	ABFG	CE	23Z9	IMPORTANT - Due to several different filament center tap arrangements, data for this tube has been discontinued. Attempts at testing may cause filament burnout on some tubes. Therefore, we recommend direct substitution as the only safe test.										25E5*	3	25	18	(AD)EN	CGH
20EW7*	3	19.6	30	FG	EH												Tube damaged if C or H is moved.					
	3	18.6	19	A,BC)	EJ	24A	2	2.5	32	BCN	DE	25EC6	3	25	20	EHN	BC					
20EZ7	1	9.45	20	GH	CJ	24AX4	3	25	20	E	CH	25EH5	3	25	20	BEFG	AD					
	1	9.45	20	EF	CD	24BF11	3	25	20	HKL	JM	25F5	2	25	22	BEFG	AD					
20J8	1	19.6	19	CDEN	QH		1	25	20	CEFG	BM	25GB6	3	25	21	DEK	GH					
	1	19.6	20	EF	QH	24GA7*	3	25	20	(BC)DG	EM	25GF8	3	25	18	DEN	GH					
20LP5*	3	19.6	18		BM		3	25	24	L	HM	26HX5*	3	25	18	(AG)FL	BCE					
				(CL) DK)(EJ)N		24JE6*	3	25	19	(AG)(BF)HNCE		Tube damaged if B or C is moved.										
21A5	3	19.6	16	ABFGHJN	CE	24JZ8*	3	25	19	D(FG)H	JM	25JQ8*	3	25	20	A(BC)(GH)	DJ					
No open element test on N							1	25	20	BK	LM		1	25	23	F	DJ					
21EX8	3	19.6	18	EHN	CG	24LQ6*	3	25	17	(AG)(BF)HNCE		25JZ8*	3	25	19	D(FG)H	JM					
21GY5*	3	19.6	18	(OGL)(EJ)N (DK)M		24LZ6*	3	25	19	(AG)(BF)HNCE	CE		1	25	20	BK	JM					
21HA6*	3	25	19	BG(FH)	ACEJ	25A6	3	25	27	CDE	GH	25KA6*	3	25	19	(CL)EN	KM					
Tube damaged if C or J is moved.						25A7	3	25	27	CDE	GH	25L8	3	25	22	CDE	GH					
21HB5*	3	19.6	18	B(OL)G	(DK)M		3	25	23	F	AQ	25MP20	3	25	20	AEF	BD					
21HD5*	3	19.6	19	(CL)(EJ)G	DKM	25AC6	3	25	31	CE	GH	25N6	2	25	30	CDE	GH					
Tube damaged if D or K is moved.						25AV5	3	25	18	AEH	BC	25RK19*	4	25	18	(BJ)	BN					
21HJ8*	3	19.6	18	(CL)(EJ)G	BDKM	25AX4	3	25	20	E	CH	26W4	3	25	16	E	CQ					
Tube damaged if D or K is moved.						25B5	3	25	37	BD	EF	25W6	3	25	17	CDE	BH					
21J86*	3	25	19	(CL)(EJ)N	BDKM	25B6	3	25	46	CD	BEF	25X6	3	25	27	C	DG					
Tube damaged if D or K is moved.						25B6	3	25	23	CDE	GH		3	25	27	E	GH					
21JV6*	3	19.6	18	(DK)CGL	BM	25B8	2	25	25	CDN	AG	25Y4	3	25	25	E	GH					
21JZ6*	3	19.6	8	(DK)CEN	BM		2	25	25	EH	FQ	25Y5	3	25	30	B	CF					
21KA6*	3	19.6	19	(CL)EN	KM	25BB14*	3	25	18	(AB)(FG)N	CEH		3	25	30	E	DF					
21KQ6*	3	9.6	19		EJ	Tube damaged if J or H is moved.						25Z5	3	25	25	B	CF					
				• AH1(BG)(CF)N		25BK5	2	25	21	ACGH	DF		3	25	25	E	DF					
21LG6*	3	19.6	20	(CL)(EJ)N	DKM	25BQ6	2	25	21	DEN	GH	25Z6	3	25	24	C	DG					
Tube damaged if D or K is moved.						25C5	2	25	20	BEFG	AD		2	25	24	E	GH					
21LR8	3	19.6	19	BFG	CE	25C6	3	25	25	CDE	GH	26	2	1.4	38	BC	D					
	1	19.6	19	HJ	AE	25CA5	3	25	17	BEFG	AC	26A6	2	2.5	22	ABEF	DG					
21LU6*	3	19.6	9	D(FG)H	JM	25CD6	3	25	20	EHN	BC	26A7	2	25	20	CDE	BG					
	1	19.6	9	BK	LM	25CG3*	3	25	18	(DK)	GM		2	25	20	AEH	BG					
21MY8*	3	19.6	19	D(FG)H	JM	25CK3*	3	25	18	(BG)	EJ	26AQ8	2	25	21	FG	EH					
	1	19.6	19	BK	LM								2	25	21	AB	CE					
22	1	2.5	56	BCN	D							26C6	3	25	30	AG	BDEF					
22BH3	3	25	22	BG	EJ								1	25	36	E	ABDFG					
													1	25	36	F	ABDEG					

Tube	Type	Fl	Plate	Top (T)	Bottom (B)	Tube	Type	Fl	Plate	Top (T)	Bottom (B)	Tube	Type	Fl	Plate	Top (T)	Bottom (B)
26D5	2	25	22	AF	BCED	30CW5*	3	32	20	•	CE	34	2	2	40	BCN	D
	1	25	40	EFG	ABC							34CD3*	3	32	18	DK	GM
26DQ6*	1	25	19	AE, (DH), N	CFG							34CE3*	1	32	18	(DK)	GM
Tube damaged if C or F is moved.						30HD5*	3	25	19	(CL)(EJ)G	DKM	34CM3*	3	32	17	(BG)	EJ
26DQ8	3	25	22	DEN	GH	A, F or H is not used in some tubes.						34DK3*	3	32	18	(BG)	DN
26HJ5*	3	25	19	AE CN	BFH	Tube damaged if D or K is moved.						34GD5	3	32	21	BEFG	AD
Tube damaged if B or F is moved.						30HJ5*	3	32	18	(CL)(EJ)G	BCKM	34R3*	3	32	20	(BJ)	DN
26LW8*	3	25	17	(AE)CN	BFG	Tube damaged if D or K is moved.						35(51)	2	2.5	30	BCN	DE
Tube damaged if B or F is moved.						30JZ5*	3	32	18	(DK)CEN	BM	35A5	3	32	22	BOF	GH
26LX6*	3	25	18	(CL)(EJ)N	BCKM	30KD6*	3	25	17	•	BM	35B5	3	32	23	AEFG	BD
Tube damaged if D or K is moved.												35C5	3	32	24	BEFG	AC
26Z6	4	25	18	F	HJ	30KG6*	4	25	21	•	EJ	35CD6	3	32	17	EHN	BC
	4	25	18	A	GJ							35DZ6	3	32	20	CFG	BE
27	2	2.5	32	BC	CE	30LE5	3	32	17	(AE)CN	BFG		1	32	20	AJ	EH
27QB5*	3	25	19	(AB)(FG), N	CEH	Tube damaged if B or F is moved.						35EH6	3	32	20	BEFG	AD
Tube damaged if C or H is moved.						30MB5*	3	32	18	(CL)(EJ)N	BCKM	35GL6	2	32	22	BEG	AD
27KQ6*	4	25	21	•	EJ	Tube damaged if D or K is moved.						A normally shows leakage.					
						30MP23*	3	32	20	(BE)FG	AC	35HB8	1	32	20	AC	BE
						30MP27*	3	32	20	(BE)FG	AC		3	32	22	FGJ	EH
27LF6*	3	25	18	•	BM	30PL12	3	12.6	26	AJ	EH	35L6	3	32	20	ODE	GH
							2	12.6	20	CFG	BE	35LR6*	3	32	17	(CL)(EJ)N	BCKM
												Tube damaged if D or K is moved.					
28D7	2	25	22	BCD	FH	31	2	2	40	BC	D	35W4	3	32	20	E	DFG
	2	25	22	CEG	FH	31AL10	2	12.6	24	BC	FG	35Y4	3	32	23	B	GH
28EC4*	3	25	19	(BGH)	EN		2	12.6	21	DEH	FG	35Z3	3	32	22	B	GH
28QB5*	3	25	19	(AB)(FG), N	CEH		3	12.6	23	JL	FK	35Z4	3	32	20	E	GH
Tube damaged if C or H is moved.						31JS6*	3	32	18	(CL)(EJ)N	BCKM	35Z5	3	32	21	E	GH
28HA6*	3	25	19	BG(FH)	ACEJ	Tube damaged if D or K is moved.						35Z6	3	32	20	C	OG
Tube damaged if C or J is moved.						31LO6*	3	32	17	(AG)(BF)HNCE	CE		3	32	20	E	GH
28HD5*	3	25	19	(CL)(EJ)G	DKM	31LR8	3	32	19	BFG	CE	36	2	6.3	32	BCN	DE
Tube damaged if D or K is moved.							1	32	19	HJ	AE	36AM3	4	32	22	E	CG
28Z6	3	12.6	36	C	GH	31LZ6*	3	32	19	(AG)(BF)N	CE	36KD6*	3	32	18	•	BM
	3	12.6	36	F	GH	32	2	2	42	BCN	D						
29	2	2.5	36	BC	DEF	32A8	1	32	20	CFG	BE						
29DK6*	2	25	20	BG, H	A, C, E		1	32	20	AJ	EH	36LW6*	3	32	17	(AE)CN	BFG
Tube damaged if C or J is moved.						32ET6*	3	32	25	(BE)FG	AD	36MC6*	3	32	18	(AG)(BF)HNCD	
29KQ6*	3	30	19	•EJ		32GA7*	3	32	20	(BC)DG	EM	37	3	6.3	37	BC	DE
							3	32	24	L	HM	38	3	6.3	36	BCN	DE
						32HQ7	3	19.6	20	EJL	AHM	38A3*	3	32	21	(AF),	CD
29LE6*	3	25	19	•	DJ		1	19.6	20	B	ADM	38KE7	3	19.6	18	EJL	HK
													1	19.6	19	B	DK
30	2	2	35	BC	D	32L7	3	32	21	CDE	GH	38HK7	3	19.6	18	EJL	HK
30A5	3	32	16	BEFG	AC		3	32	18	F	AG		1	19.6	18	B	DK
30AE3	3	32	20	ABCFGHJ	EN	33	3	2	39	BCD	E	39(44)	2	6.3	30	BCN	DE
No element fast on top levers.						33GT7*	3	12.6	20	E(JL)K	AHM	40	1	5	28	BC	D
30AG11	1	25	20	C	BM		3	12.6	21	B	ADM	40FH5	3	32	22	BEFG	AD
	1	25	20	K	JM	33GY7*	3	12.6	19	E(JK)L	AHM	40KD6*	3	32	17	•	BM
	2	25	20	EF	DM		3	12.6	21	B	ADM						
	2	25	20	GH	JM	33HE7	3	32	18	EJL	HM						
							1	32	19	B	DM	40KG6*	4	32	21	•	E
30C18	3	7.5	17	BCG	EFH	33JR6*	3	32	18	(AG)BJ	CEF						
	3	7.5	22	AJ	EFH	33JV6*	3	32	18	(DK)CGL	BM	40SUA	2	2	39	CDN	G
Tube damaged if F or H is moved.																	

Tube	Type	Fil	Plate	Top (T)	Bottom (B)	Tube	Type	Fil	Plate	Top (T)	Bottom (B)	Tube	Type	Fil	Plate	Top (T)	Bottom (B)
40Z5	3	32	20	E	BCN	53HK7	3	25	18	EJL	HK	88M	3	6.3	31	CDN	EQH
(45Z5)							1	25	18	B	OK	88S	3	6.3	32	BCN	DEF
41	3	6.3	32	BCD	EF	55	2	2.5	32	BN	EF	89	3	6.3	32	BCN	EF
42	3	6.3	29	BCD	EF		1	2.5	49	C	EF	89RS	3	8.3	36	BN	CFG
42EC4	3	32	19	BGH	EH		1	2.5	40	D	EF		1	6.3	24	D	CD
42KN6	3	19.8	17	*	BG	56	2	2.5	30	BC	DE		1	6.3	24	F	CG
	•(CL)(DK)(EL)N					57	2	2.5	30	BCN	DEF	95	3	2.5	36	BCD	EF
43	3	25	31	BCD	EF	57A(AS)	3	6.3	34	BCN	DEF	98	3	6.3	28	B	DE
46	3	2.5	32	BC	D	58	3	2.5	36	BCN	DEF		3	6.3	28	C	DE
45B5	3	50	19	AB ₂ (GH) ₂	CE	58AS	3	6.3	35	BCN	DEF	99	2	2.5	65	BC	D
45Z3	3	50	24	BF	DG	58HE7	1	50	19	B	DM	(99XX99)					
46	3	2.5	36	BCD	E		3	50	18	EJL	HM	99V	2	2.5	68	AC	D
47	3	2.5	41	BCD	E	59	3	2.5	29	BCDE	FG	(V99)					
48	3	32	25	BCD	EF	60FX5	2	50	22	BEFG	AD	113HY	1	1.4	45	BC	E
49	2	2	38	BCD	E	64	1	6.3	22	BCN	DE	(123HY)					
50	3	7.5	42	BC	D	65	2	6.3	28	BCN	DE	114HY	3	1.4	55	N	G
50A5	3	50	20	BCF	GH	67	3	6.3	37	BC	DE	115HY	1	1.4	45	BCD	E
50B5	3	50	20	AEEFG	BD	68	3	6.3	37	BCN	DE	(145HY)					
50BK5	2	50	21	ACGH	DF	70A7	3	70	23	CDE	FGH	117L7	3	110	20	F	AG
50BM8	1	50	20	CFG	BE	A shows short.						117	3	110	26	CDE	GH
	1	60	20	AJ	EH		3	70	20	AFG		117N7	3	110	20	CDE	FGH
50C5	3	50	22	BEFG	AC	Allow tube to heat up. Move levers F & G to top position. Good tube will kick to 70.							3	110	15		GH
50C6	3	50	22	CDE	GH	70L7	3	70	18	CDE	FG	Allow tube to heat up. Move lever G to top position. Good tube will kick to 70.					
50CA5	3	50	22	BEFG	AC		3	70	17	H	AG	117P7	3	110	22	CDE	FGH
50CD4	3	50	23	E	CG	71A	3	5	47	BC	D		3	110	15		GH
50EH5	3	50	20	BEFG	AD	72	4	2.5	35	N	D	Allow tube to heat up. Move lever G to top position. Good tube will kick to 70.					
60FA6	3	50	22	BEFG	AD	75	1	6.3	20	BN	EF	117Z3	3	110	24	AE	DF
A normally shows leakage.							1	6.3	38	C	EF	117Z4	3	110	19	E	GH
60FE6	3	50	22	CDE	BH		1	6.3	38	D	EF	117Z6	3	110	20	C	DG
50FK5	3	50	24	BEG	AC	76	2	6.3	33	BC	DE		3	110	20	E	GH
50GY7	3	25	19	EJL	AKM	77	3	6.3	30	BCN	DEF	126A/	4	2.5	20	BC	DE
	25	21	8	ADM		78	3	6.3	31	BCN	DEF	2523N1					
50KC8	3	50	19	BEG	AC	79	3	6.3	30	BC	DF	163PEN	3	12.6	18	BGL	CD
50HK8	3	50	20	BEG	AC		3	6.3	30	EN	DF	162B	3	5	37	BC	D
50JY6	3	50	19	(AD)CEN	GH	80	3	5	55	B	D	(482B)					
50L8	3	50	21	CDE	GH		3	5	55	C	D	183	3	5	40	BC	D
50X8	3	50	19	C	BH	81	3	7.5	75	B	D	(483)					
	3	50	19	F	GH	82(82V)	3	2.5	24	B	D	201B	2	5	45	BC	D
50Y8	3	50	23	C	DG		3	2.5	24	C	D	201C	2	5	45	BC	D
	3	50	23	E	GH	83(83V)	3	5	26	B	D	210T	3	7.5	56	BC	D
50Y7	3	50	20	C	BD		3	5	26	C	D	220S	2	2	35	BC	D
	3	50	20	E	BH	84	3	6.3	26	B	DE	232	2	2	42	BCN	D
50Z6	3	50	21	C	DG		3	6.3	26	C	DE	233S	3	2	39	BCD	F
	3	50	21	E	GH	85	3	6.3	45	BN	EF	234S	2	2	40	BCN	D
50Z7	3	50	25	C	DFG		1	6.3	47	C	EF	257A	2	2.5	41	BN	D
	3	50	25	E	FGH		1	6.3	47	D	EF	262B	3	7.5	42	BN	CD
52	3	6.3	30	BCD	E	86M	3	6.3	37	CE	GH						
53	3	2.5	32	BC	DG	87S	2	6.3	33	BCN	DEF						
	3	2.5	32	EF	DG	88	3	5	26	B	D						
							3	5	26	C	D						

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)					
274A	3	5	36	B	D	866(A)	3	2.5	25	N	D	1608	3	2.5	24	BC	D					
	3	5	36	C	D	GL874	4	.63	30	C	ABD	1609	2	1.4	32	BCD	E					
300B	3	5	21	BC	D	Good tube reads above 10.											1610	3	2.5	28	BCD	E
310B	2	7.5	20	BCD	AE	TJ880*	2	6.3	21	B(CJ)GH	AE	1612	3	6.3	25	DN	GH					
313C	4	Off	45	B	A	884	4	6.3	20	CE	GH	1614	3	6.3	24	CDE	GH					
313CB	4	Off	53	B	AD	885	4	2.5	20	BC	DE	1616	3	2.5	57	N	D					
313CD	4	Off	44	B	AD	950	3	2	46	BCD	E	1619	3	2.5	29	CDE	GH					
348A	1	6.3	24	CDEN	BH	951	2	2	35	BCN	D	1620	1	6.3	22	CDN	GH					
376B	4	Off	37	E	BG	986	3	5	26	B	D	1621	3	6.3	40	CDE	GH					
393A	4	2.5	20	DN	AB		3	5	26	C	D	1622	3	6.3	27	CDE	GH					
396A	2	6.3	23	CD	BFGHJ	1003	4	Off	22	E	CH	1624	3	2.5	26	BCN	E					
	2	6.3	23	FG	BCDHJ		4	Off	32	C	EH	1625	3	12.6	26	CDN	FG					
403B	2	6.3	22	AEF	BCG	1005/	4	6.3	26	E	F	1626	3	12.6	32	CE	GH					
Tube damaged if B or G is moved.						CK1005	4	6.3	26	C	F	1629	2	12.6	36	CE	GH					
407A	1	19.8	20	CD	ABJ		4	6.3	26	C	F	Eye OP	4	12.6	0	D	CEGH					
	1	19.8	20	FG	AHJ	1006/	4	1.4	22	C	A	Eye CL	4	12.6	0	CD	EGH					
408A*	1	19.8	20	AEF	(BG)D	CK1006	4	1.4	25	B	A	1631	3	12.6	27	CDE	GH					
417A	2	6.3	20	ADEGH	FJ		4	6.3	21	C	G	1632	3	12.6	22	CDE	GH					
427	3	2.5	44	BC	DE	CK1007	4	.63	21	C	G	1633	2	25	28	AB	CG					
428A	3	5	47	BC	D		4	.63	21	E	G	1634	1	12.6	20	BC	FG					
484(485)	3	2.5	32	BC	DE	CK1027	4	Off	27	DN	ABFG	1635	2	6.3	26	CD	EFQH					
486	2	2.5	48	BC	DE	1201*	2	6.3	34	(AE)(CG)	(DF)H		2	6.3	26	EF	CDGH					
502A	3	6.3	19	CEF	GH	1203	1	6.3	33	D	GH	1642	2	6.3	29	CN	BQ					
(GL602A)						1204	2	6.3	26	ACE	DFGH		2	6.3	29	DE	FG					
587	3	5	24	D	H	1221	1	6.3	22	BCN	DEF	1654	1	1.4	41	N	A					
	3	5	24	F	H	1222	3	6.3	20	BOD	FG	1680	1	6.3	24	AF	BDEG					
596	3	7.5	42	BC	D	1223	1	6.3	22	CON	EGH		1	6.3	56	EFG	ABD					
598	3	7.5	42	BC	D	1229	1	2	25	BCN	D	1651	3	6.3	20	ODN	EGH					
615HY	3	6.3	33	N	G	1231	2	6.3	23	BCF	DGH	1652	3	6.3	21	DFH	CEG					
Short top caps together.						1232	2	6.3	22	BCDF	GH	No open element test on C & H.										
713A	2	6.3	25	DFH	CEG	1237	2	2.5	26	C	G	1653	3	6.3	23	DFH	CEG					
717A	1	6.3	23	DFH	CEG		2	2.5	26	F	G	2050/	3	6.3	17	DEF	GH					
Z720	1	6.3	20	AFHJ	BCEG	1266	4	Off	95	E	BCG	2051										
800	3	7.5	84	N	D	Good tube reads above 10. No open element test on levers C & G. Tube normally shows short in short position.																
Short top caps together.						1267	4	Off	31	E	BG	5516	3	2.5	25	CEN	BQ					
801	3	7.5	42	BD	D	1273	3	6.3	26	BCF	DGH	5591	2	6.3	22	AEF	BCG					
802	3	6.3	29	CDN	EFG	1274	4	6.3	19	C	GH	Tube damaged if B or G is moved.										
807	3	6.3	25	BCN	DE		4	6.3	19	E	GH	CK5808A2	2.5	26	BC	DG						
809	3	6.3	27	CN	D	1275	3	5	30	B	CD		2	2.5	26	EF	DG					
811A	3	6.3	34	CE	D		3	5	30	C	BD	GL5610	2	6.3	22	AEF	BD					
Requires jumper from plate cap to pin 5 of any other tube socket.						1280	3	12.5	26	BCF	DGH	5618	3	2.5	21	BCDF	AG					
812	3	6.3	29	CN	D	1284	3	12.5	25	BCF	DGH	5642	1	1.4	100	N	E					
816	4	2.5	19	N	A	1291	1	1.4	33	BC	AH	Insert bottom leads into pins 4 & 5 respectively. Use plate cap top lead.										
837	3	12.6	25	CDN	EFG		1	1.4	33	FG	AH	5651	4	Off	95	AE	BDG					
840	2	2	33	BCN	DE	1293	2	1.4	32	BF	H	Good tube reads above 30.										
841	3	7.5	45	BC	D	1294	1	1.4	57	D	GH	5654*	2	6.3	22	AEF	(BG)C					
842	3	7.5	54	BC	D	Good tube reads above 10.																
864	1	1.4	55	BC	DE	1299	2	1.4	30	BCF	AH	5659	3	12.6	32	CDE	GH					
865	3	7.5	80	BCN	D	1603	1	6.3	23	BCN	DEF	5660	3	12.6	41	CFN	GH					
													1	12.6	38	D	GH					
													1	12.6	38	E	GH					

Tube	Type	Fil	Plate	Top (T)	Bottom (B)	Tube	Type	Fil	Plate	Top (T)	Bottom (B)	Tube	Type	Fil	Plate	Top (T)	Bottom (B)
6680	2	6.3	25	AB	CDE	7189	1	6.3	19	BCG	EF	Good tube reads above 28.					
	2	6.3	25	FG	DEH		2	6.3	21	AJ	EH	8032	3	12.6	23	CEN	ADFG
6681	1	6.3	20	AB	CDE	7233	3	6.3	19	(ACFJ)(BG)	DH	Tube damaged if AD or F is moved.					
	1	6.3	20	FG	DEH	7247	1	6.3	22	FG	DEH	8066	3	6.3	22	EHN	CG
6686	3	6.3	19	BGHJ	CE		2	6.3	24	AB	CDE	8077*	2	12.6	21	B(CJ)GH	AE
6688*	2	6.3	21	BGHJ	(AC)E	7258	2	12.6	22	AB	CE	8102	3	12.6	19	FGJ	EH
6689	2	6.3	20	ABFJ	CE		2	12.6	21	FGH	EJ		3	12.6	19	AC	BE
6829	3	6.3	20	AB	CDE	No open element test on F.						8106	3	12.6	19	A(CH)G	(BFJ)E
	3	6.3	20	FG	DEH	7308	1	6.3	20	AB	CE	8113	3	6.3	20	AEF	BDG
6883*	3	12.6	19	CEN	(ADF)G		1	6.3	20	FG	EH	Tube damaged if B or G is moved.					
8887	1	6.3	20	B	DE	7316	2	6.3	24	AB	CJ	8136	3	6.3	19	AEF	BCG
	1	6.3	21	G	AD		2	6.3	24	FG	HJ	8156	3	12.6	22	•	BPHJM
8888	1	6.3	20	CDPH	EG	7355	3	6.3	19	CFH	EG	•(CDE)(GL)K					
8893*	3	12.6	21	CEN	(ADF)B	7360	2	6.3	20	BCFG	AHJ	Tube damaged if BFH or J is moved.					
8919	1	6.3	23	B	DE	7408	3	6.3	24	CDE	AGH	8233*	3	6.3	19	A(BF)CH	DGJ
	1	6.3	23	G	AD	7543	1	6.3	20	ABEF	CG	Tube damaged if G or J is moved.					
8922	3	6.3	20	AB	CEJ	7551*	3	12.6	19	D(CH)FG	(AJ)E	8278*	3	6.3	19	(AH)(CG)J	BEF
	3	6.3	20	FG	EHJ	7558*	3	6.3	19	B(CH)FG	(AJ)E	Tube damaged if B or F is moved.					
8939	3	6.3	22	AFG	BDE	7581	3	6.3	20	CDE	BH	8417	3	6.3	19	CDE	GH
	3	6.3	22	CGH	BDE	7586	2	6.3	19	BD	HM	8425	2	6.3	22	ABEF	DG
8954	1	6.3	20	AEFG	BD	7597	2	6.3	19	BDN	HM	8552	3	12.6	23	CEN	ADFG
8973*	4	6.3	19	(AH)(CF)J	EG	No open element test on N.						Tube damaged if A, D or F is moved.					
7000	2	6.3	29	CDN	AEGH	7591	3	6.3	20	CDPH	EG	8908*	3	6.3	18	(AE)(BF)C	DH
7028	1	6.3	20	AB	CDE	7643	2	6.3	21	AJ	EH	8950	3	12.6	18	•	BFM
	1	6.3	20	FG	DEH		2	6.3	20	BCF	EG	•(CL)(DK)(EJ)N					
7027*	4	6.3	18	(AD)(CF)J	GH	7687	1	6.3	19	BCF	EG	Tube damaged if B or F is moved.					
7036	1	6.3	20	AF	BD	No open element test on F.						9001*	1	6.3	20	AEF	(BG)D
	1	6.3	28	EG	BD		2	6.3	23	AJ	EH	9002*	2	6.3	27	(AE)F	(BG)D
7044	2	6.3	19	AB	CDE	7695	3	50	21	AFJ	EG	9003*	2	6.3	27	AEF	(BG)D
	2	6.3	19	GJ	FDE	7700	1	6.3	20	BCN	DEF	9004	1	6.3	20	D	EG
7064	2	12.6	21	BCGHJ	AE	7701*	3	12.6	30	BF(GJ)	(ACH)E	9005	1	2.5	34	E	DGH
7065	2	12.6	23	G	AD	7716	1	12.6	19	BC	AE	9006*	1	6.3	28	AE	(BG)D
	2	12.6	23	B	DE		3	12.6	19	GHJ	EF	FOREIGN					
7068	2	12.6	21	AEFG	BD	7719	1	6.3	21	(AF)(BG)	(CH)DE	A1634	3	6.3	16	AB	CH
7087	2	12.6	22	FG	EH	7751*	3	6.3	20	(AD)CE	BH		3	6.3	16	DE	PH
	2	12.6	22	AB	CE	7754	3	6.3	20	AFJ	EG	AA91E	1	6.3	22	B	DE
7059	2	12.6	23	BCF	EG	7788*	3	6.3	17	B(FJ)GH	ACE		1	6.3	22	G	AD
	2	12.6	21	AJ	EH	Tube damaged if A or C is moved.						ABC91	3	12.6	32	CDE	QH
7060	2	12.6	28	FGH	EJ	7798	2	6.3	20	AB	CJ	AF	3	2.5	24	B	D
	2	12.6	23	AB	CE		2	6.3	20	FG	HJ		3	2.5	24	C	D
7061*	3	12.6	22	(AH)(CF)J	EG	7868*	3	6.3	20	(AG)(BF)J	CE	AG	3	5	26	B	D
7082	2	16.3	21	AB	CJ	7895	2	6.3	19	BD	HM		3	5	26	C	D
	2	6.3	21	FG	HJ	7898	3	6.3	20	FG	HJ	B36	2	12.6	29	AB	CG
7105	3	12.6	15	AB	CH		3	6.3	20	AB	CJ		2	12.6	29	DE	FG
	3	12.6	15	DE	FH	7905*	2	315	24	B(CH)	AGJ	B309	2	6.3	24	AB	CJ
7119	4	6.3	19	GJ	DEF	Tube damaged if A or J is moved.							2	6.3	24	FG	HJ
	4	6.3	19	AB	CDE	7984*	3	12.6	19	•	BPHJM	B339	1	6.3	20	AB	CDE
7137	2	6.3	22	AEFG	BD	•(CDE)(GL)K							1	6.3	20	FG	CDE
7167*	3	12.6	22	AEF	(BG)C	8016	1	14	98	N	ACDEFGH	Tube damaged if D or E is moved.					
7189*	4	6.3	17	(AB)(FJ)G	CE	Use G & N only or element test.											
7193	2	6.3	24	N	GH												

Short top caps together.

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)	Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
D2M9	1	6.3	22	B	DE	FK33	3	6.3	27	DE	FG
	1	6.3	22	G	AD		3	6.3	27	CH	BG
E82CC	2	6.3	25	FG	DEH	FK34	3	6.3	27	EN	DG
	2	6.3	25	AB	CDE	Top cap lead on left top cap.					
E83CC	1	6.3	20	FG	DEH		3	6.3	27	CH	DG
	1	6.3	20	AB	CDE	Top cap lead on right top cap.					
E-90Z	3	6.3	30	F	DG	UF89	2	12.6	23	BGH	CEJ
	3	6.3	30	A	DG	VR75	4	Off	30	E	BCG
E92CC	1	6.3	20	BE	ADFG	Good tube reads above 10.					
	1	6.3	20	AF	BDEG	VR90	4	Off	30	E	BCG
E188CC	1	6.3	20	AB	CE	Good tube reads above 10.					
	1	6.3	20	FG	EH	VR105	4	Off	30	E	BCG
E810P*	3	6.3	17	B(FJ)GH	ACE	Good tube reads above 10.					
Tube damaged if A or C is moved.						VR150	4	Off	30	E	BCG
E-802	3	6.3	30	F	DG	Good tube reads above 10.					
	3	6.3	30	A	DG	WL401	4	2.5	59	N	D
EAP801	3	6.3	23	ABF	CDJ	WNDA	3	6.3	36	BC	DEF
	1	6.3	34	H	CD	WNDC	3	2.5	35	BC	DEF
ECC808	2	6.3	23	AC	BD	WX12	1	1.4	55	BC	D
	2	6.3	23	GJ	DH	XXB	2	1.4	40	CD	AH
ECLL8003	3	6.3	24	AB	DG		2	1.4	40	EF	AH
	3	6.3	20	BCJ	DG	XXD	3	12.6	25	EF	BCDGH
	3	6.3	20	FHJ	DG		3	12.6	25	CD	BEFGH
ED500	1	6.3	26	HK	ABCEFGJ	XXFM	1	6.3	27	BC	DGH
Tube damaged if ABCFG or J is moved.							1	6.3	27	E	DH
EF37A	3	6.3	28	CDEN	GH		1	6.3	27	F	GH
EP804S	3	6.3	25	AGHJ	CD	XXL	2	6.3	24	BF	GH
EL32	3	6.3	29	ODE	AQH	Z2000	1	6.3	22	BE	CG
EL-504*	3	6.3	19	(AB)(FG)N	CEH		1	6.3	22	AF	CG
Tube damaged if C or H is moved.											
EL-505*	4	6.3	21	•	EJ						
•(AH)(BG)(CF)N											
EL-508	3	6.3	20	DEN	GH						
FM1000	1	6.3	20	BE	ACG						
	1	6.3	35	DF	ACG						
G4	1	2.5	45	B	DE						
	1	2.5	45	C	DE						
GA	3	6	32	BCD	E						
HY69	4	6.3	20	BCD	E						
HY1269	4	5.3	18	BCN	AE						
KR1	3	6.3	24	B	CD						
KR5	3	6.3	36	BCD	E						
KR25	3	2.5	36	BCD	EF						
KR98	3	6.3	26	B	DE						
	3	6.3	26	C	DE						
PZ	3	2.5	41	BCD	E						
PZH	3	2.5	36	BCD	EF						
R30	2	2	35	BC	D						
R100	3	7.5	43	N	D						
Short top caps together.											